



LDO Selector (QS and Others)

Are You Looking For Automotive Qualified LDO,
Ripple Blockers or LDO Controller?

Non-Automotive

Automotive

RippleBlockers
(High PSRR)

LDO Controller

Choose the type of LDO

LDO Selector (# of Output)

How Many Outputs? (Channels or Vout Pins)

Single (1)

Dual (2)

Multiple (3-4)

Single = 1 output, Dual = 2 outputs, Multiple = 3 or 4 outputs

HOME

<< BACK

LDO Selector (Max Vin-1)

What is the MAX input voltage range?

Up to 5.5Vin

6Vin to 16Vin

18Vin to 36Vin

38Vin to 120Vin

Negative LDO

This is not the range of input voltages, only the Max VIN!

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Max Vin-2)

What is the MAX input voltage range?

Up to 6Vin

10Vin to 26Vin

This is not the range of input voltages, only the Max VIN!

HOME

<< BACK

LDO Selector (Max Vin-3-4)

What is the MAX input voltage range?

6.0Vin

This is not the range of input voltages, only the Max VIN!

HOME

<< BACK



MICROCHIP

LDO Selector (Iout-1 5.5)

What is the MAX current output range?

100mA to 150mA

200mA to 300mA

400mA to 500mA

600mA to 5.0A

HOME

<< BACK

LDO Selector (Iout-1 16)

What is the MAX current output range?

≤50mA

100mA to 150mA

200mA to 300mA

400mA to 500mA

600mA to 1A

1.2A to 7.5A

LDO Selector (Iout-1 36)

What is the MAX current output range?

100mA to 150mA

200mA to 300mA

400mA to 500mA

600mA to 3A

3.5A to 7.5A



MICROCHIP

LDO Selector (Iout-1 120)

What is the MAX current output range?

Up to 150mA

HOME

<< BACK

LDO Selector (Iout-2 6V)

What is the current output combination?

150mA/300mA(*)

200mA/200mA
(Not Available)

150mA/150mA

300mA/300mA

300mA/500mA(*)

500mA/500mA

2A/2A

* Different Iout combinations

[HOME](#)

[<< BACK](#)

LDO Selector (I_{out}-2 6V)

What is the current output combination?

150mA/150mA

150mA/300mA(*)

200mA/200mA

300mA/300mA

300mA/500mA(*)

500mA/500mA

2A/2A

* Different I_{out} combinations

[HOME](#)

[<< BACK](#)



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LDO Selector (lout-3-4)

What is the current output combination?

150/150/150mA
Triple

200/200/200mA
Triple

250/250/250mA
Triple

200/200/200/1mA
Quad

HOME

<< BACK

LDO Selector (Feature 150)

Choose your feature

High PSRR

Ultra Low Dropout

Small Size

**Low Power
(Low Iq)**

Low Vin

General Purpose

LDO Selector (Feature 300)

Choose your feature

High PSRR

Ultra Low Dropout

Small Size

**Low Power
(Low Iq)**

Low Vin

General Purpose

LDO Selector (Feature 500)

Choose your feature

High PSRR

Ultra Low Dropout

Small Size

**Low Power
(Low Iq)**

Low Vin

General Purpose



MICROCHIP

LDO Selector (Feature 5)

Choose your feature

High PSRR

Ultra Low Dropout

Low Vin

HOME

<< BACK

LDO Selector (High PSRR)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- High PSRR

MIC5308

90dB @ 1kHz

Bias Rail, 1.6x1.6DFN

MIC5305

85dB @ 1kHz

20uVrms Noise, 2x2 DFN

MIC5365/6

80dB @ 1kHz

1x1 DFN

LDO Selector (UL Dropout)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- Ultra Low Dropout

MIC5301

40mV Dropout
SOT23-5, DFN6

MIC5306

45mV Dropout
16uA Iq, SOT23-5

MIC5308

45mV Dropout
90dB PSRR, DFN6

MIC5302

50mV Dropout
1.2x1.6 DFN4

MIC5305

60mV Dropout
85dB PSRR, DFN6

MIC5304

85mV Dropout
0.5% Acc. DFN6



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LDO Selector (Small Size)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- Small Size

MIC5365/6

**1x1mm DFN, TSOT, SC70
80 dB PSRR**

MIC5375/6

**1x1mm DFN, SC70
Low Drop (120mV)**

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Low Iq)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- Low Iq

MIC5306

16uA Iq, 45mV Vdo,
SOT23-5

MIC5308

23uA Iq, 90 dB PSRR,
1.6x1.6mm DFN

MCP1810

0.02uA Iq, 1uF Cap,
2x2mm DFN, SOT-23

MIC5326

24uA Iq, 85mV Vdo,
1.2x1.6mm DFN

MCP1811

0.25uA Iq, 1uF Cap,
1x1mm DFN, SOT-23, SC70

MIC5304

24uA Iq, Selectable Vout,
1.6x1.6mm DFN

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Low Vin)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- Low Vin

MIC5308

1.6Vin Min, 90dB
1.6x1.6mm DFN

HOME

<< BACK



MICROCHIP

LDO Selector (Cost)

Choices Made

- Single Output
- 5.5Vin Max
- 100-150mA Output
- General Purpose

MIC5365/6

150mA, 80dB PSRR,
29uA Iq, 1x1 DFN

MIC5317

150mA, 70 dB PSRR 1x1
DFN

[HOME](#)

[<< BACK](#)

LDO Selector (High PSRR 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- High PSRR

MIC5309

90dB @ 1kHz

MIC94310

85dB, RippleBlocker

MIC5363/4

80dB @ 1kHz

LDO Selector (UL Dropout 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- Ultra Low Dropout

MIC94310
40mV Dropout,
RippleBlocker

MIC5303
100mV Dropout

MIC5307
120mV Dropout

MIC5309
100mV Dropout



MICROCHIP

LDO Selector (Small Size 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- Small Size

MIC5501/2/3/4

1x1mm DFN, SOT23

MIC5337

1.2x1.6mm DFN
Low Dropout

MIC5303

1.2x1.6mm DFN
Low Dropout

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Low Iq 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- Low Iq

MIC5307
20uA Iq

MIC5309
23uA Iq

MIC5337
24uA Iq

MIC5327
24uA Iq

MCP1812
0.25uA Iq, 2uF Cap,
1x1mm DFN, SOT-23, SC70

HOME

<< BACK



MICROCHIP

LDO Selector (Low Vin 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- Low Vin

MIC5309

1.7Vin Min

MIC94310

1.8Vin Min

RippleBlocker

HOME

<< BACK



MICROCHIP

LDO Selector (Cost 2)

Choices Made

- Single Output
- 5.5Vin Max
- 200-300mA Output
- General Purpose

MIC5501/2/3/4
300mA 1x1 DFN

MIC5317
150mA 1x1 DFN

HOME

<< BACK



MICROCHIP

LDO Selector (High PSRR 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- High PSRR

MIC5528

70dB @ 1kHz

MIC94305/25/45

85dB, RippleBlocker

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (UL Dropout 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- Ultra Low Dropout

MIC47050

44mV Dropout
3.6V Max Input

MIC47053

44mV Dropout
3.6V Max Input

MIC94305/25/45/55

100mV Dropout
RippleBlockers

MIC5325

110mV Dropout

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Small Size 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- Small Size

MIC5524
1x1mm DFN
Smallest 0.5A LDO

HOME

<< BACK



MICROCHIP

LDO Selector (Low Iq 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- Low Iq

MIC47050
6uA Iq

MIC47053
6uA Iq

HOME

<< BACK



MICROCHIP

LDO Selector (Low Vin 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- Low Vin

MIC47050

1.0Vin Min
6uA Iq

MIC94305/25/45/55

1.8Vin Min
RippleBlocker

MIC5325

1.7Vin Min
Low Dropout

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Cost 3)

Choices Made

- Single Output
- 5.5Vin Max
- 400-500mA Output
- General Purpose

MIC5524
1x1mm DFN
Smallest 0.5A LDO

MIC5528
High PSRR
DFN6

HOME

<< BACK

LDO Selector (High PSRR 4)

Choices Made

- Single Output
- 5.5Vin Max
- 600-5 A Output
- High PSRR

MIC47100

80dB @ 1kHz
1A Output

MIC59300

65dB @ 1kHz
3A Output

MIC59150

60dB @ 1kHz
1.5A Output, Low DO



MICROCHIP

LDO Selector (UL Dropout 4)

Choices Made

- Single Output
- 5.5Vin Max
- 600-5 A Output
- Ultra Low Dropout

MIC47100
80mV Dropout
1.0A Output

MIC59150
100mV Dropout
Low Input Voltage

HOME

<< BACK



MICROCHIP

LDO Selector (Low Vin 4)

Choices Made

- Single Output
- 5.5Vin Max
- 600-5 A Output
- Low Vin

MIC47100

1.0Vin Min
1.0A, High PSRR

MIC59300

1.0Vin Min
3.0A Output

MIC59150

1.0Vin Min
1.5A Output

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 50)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- \leq 50mA Output

MIC5231

12Vin Max, 0.65uA Iq
10mA Output, SOT-23

MIC5232

7Vin Max, 1.8uA Iq
10mA Output, TSOT

TC1014

6Vin Max, 85mV DO,
50mA Output, SOT-23

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 150)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 100-150mA Output

MCP1711

6Vin Max, 0.6uA Iq
150mA Output, DFN4

MCP1754

16Vin Max, 72 dB PSRR
150mA Output, DFN8

MIC5252

6Vin Max, 135mV DO
150mA Output, SOT23

MIC5206

16Vin Max, 75 dB PSRR
150mA Output, SOT23

TC1017

6Vin Max, 0.5% Acc
150mA Output, SOT23

MIC5225

16Vin Max, Reverse
Current Protection

MIC5317

6Vin Max, 80 dB PSRR
150mA Output, DFN4

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 300)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 200-300mA Output

MIC5207

16Vin Max, 75 dB PSRR
180mA Output, SOT23

MCP1755

16Vin Max, 80 dB PSRR
300mA Output, DFN8

MCP1703A

16Vin Max, 2uA Iq
250mA Output, SOT23

MIC5353

6Vin Max, Cost
300mA Output, DFN6

MCP1824/S

6Vin Max, 0.4% Acc
300mA Output, SOT23

MIC5259

6Vin Max, Cost
300mA Output, VDFN6

MIC5318

6Vin Max, 110mV DO
300mA Output, DFN6

[HOME](#)

[<< BACK](#)

LDO Selector (16Vin Max 500)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 400-500mA Output

MCP1725

6Vin Max, 0.5% Acc
500mA Output, DFN8

MIC5209

16Vin Max, 75 dB PSRR
500mA Output, DFN8

MIC5237

16Vin Max, Rev. Batt Prot
500mA Output, TO-220

TC1262

6Vin Max, 80uA Iq
500mA Output, SOT-223



MICROCHIP

LDO Selector (16Vin Max 1)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 600mA – 1A Output

MIC3775

6Vin Max, Rev Current
Prot, 750mA, MSOP8

MIC37100

6Vin Max, Rev Batt and
Current Prot, 1A, SOT223

MIC3975

16Vin Max, Rev Current
Prot, 750mA, MSOP8

MIC39100

16Vin Max, Rev Batt and
Current Prot, 1A, SOIC8

TC2117

6Vin Max, 0.5% Acc
800mA Output, SOT223

MCP1826/S

6Vin Max, 225mV DO
1A Output, SOT223

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 7.5)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 1.2A – 7.5A Output

MCP1727

1.5A, 6Vin Max, Very
Accurate, SOIC8, DFN8

MIC297xx

7.5A, 16/26Vin Max,
TO-220, TO-247

MIC37xxx

1.5/3/5A, 6Vin, RevCurrent
Prot, 3/5-pin SPAK, SOIC8

MCP1827/S

1.5A, 6Vin Max, 0.5% Acc.
TO-220, DDPAK

MIC39xxx

1.5/3/5A, 16Vin, RevCurrent
Prot, 3/5-pin TO-220, DDPAK

MIC47xxx

1.5/3A, 1.4 – 6.5Vin, Rev
Prot, 3/5-pin TO-252

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (36Vin Max 150)

Choices Made

- Single Output
- 18 - 36Vin Max
- 150mA Output

LP2951

30Vin Max, 100 uA Iq
100mA Output, SOIC8

MIC5236

30Vin Max, Load Dump,
Rev Current Prot, 150mA

MCP1790/1

30Vin Max, Load Dump
70mA, SOT223

MIC5200

26Vin Max, 70dB PSRR
100mA, SOIC8

MIC5233

36Vin Max, Low Iq, Rev
Batt and Current

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (36Vin Max 300)

Choices Made

- Single Output
- 18 - 36Vin Max
- 300mA Output

MIC2954

30Vin Max, Load Dump
250mA Output, SOIC8

MIC5201

30Vin Max, 75dB PSRR
200mA, SOT223

HOME

<< BACK



MICROCHIP

LDO Selector (36Vin Max 500)

Choices Made

- Single Output
- 18 - 36Vin Max
- 500mA Output

MIC29201

26Vin Max, 70dB PSRR
400mA Output, SOIC8

MIC5239

30Vin Max, 23uA Iq
500mA, SOT223

HOME

<< BACK



MICROCHIP

LDO Selector (36Vin Max 3)

Choices Made

- Single Output
- 18 - 36Vin Max
- 600mA – 3A Output

MIC29150/1/2

26Vin Max, Load Dump,
1.5A Output, TO-220

MIC29300/1/2/3

26Vin Max, Load Dump
3A, TO-220

MIC29371

26Vin Max, 160uA Iq
750mA, SOIC8

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (36Vin Max 7.5)

Choices Made

- Single Output
- 18 - 36Vin Max
- 3.5A – 7.5A Output

MIC29500/1/2/3

26Vin Max, Load Dump,
5A Output, TO-220

MIC29751/2

26Vin Max, Load Dump
7.5A, TO-247

[HOME](#)

[<< BACK](#)

LDO Selector (120Vin Max150)

Choices Made

- Single Output
- 38-120Vin Max
- 150mA Output

MCP1792/3

55Vin Max, 70V Load Dump,
100 mA, Enable, SOT-223,
SOT-23

MCP1799

45Vin Max, 25uA Iq, 80mA,
SOT-23, SOT-223

MIC5280

120Vin Max, Load Dump
25mA Output, SOIC8

MIC5281

120Vin Max, 90 dB, Load
Dump, 25mA, MSOP8

MIC5282

120Vin Max, 90dB Load
Dump, 50mA, MSOP8

MIC5283

120Vin Max, 8uA Iq, Load
Dump, 150 mA, DFN8



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LDO Selector (-Vin)

Choices Made

- Single Output
- Negative LDO
- All 100 mA output

MIC5270/1

-16Vin Max, 35/25uA Iq,
50dB, SOT23-5

TC59

-10Vin Max, 3 uA Iq,
50dB, SOT23-3

[HOME](#)

[<< BACK](#)

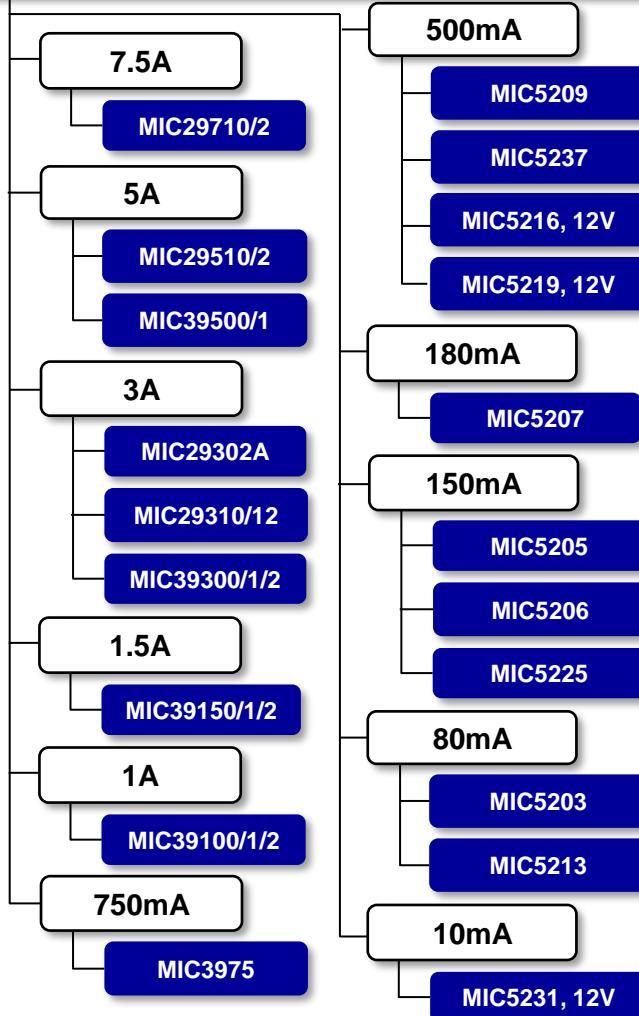


MICROCHIP

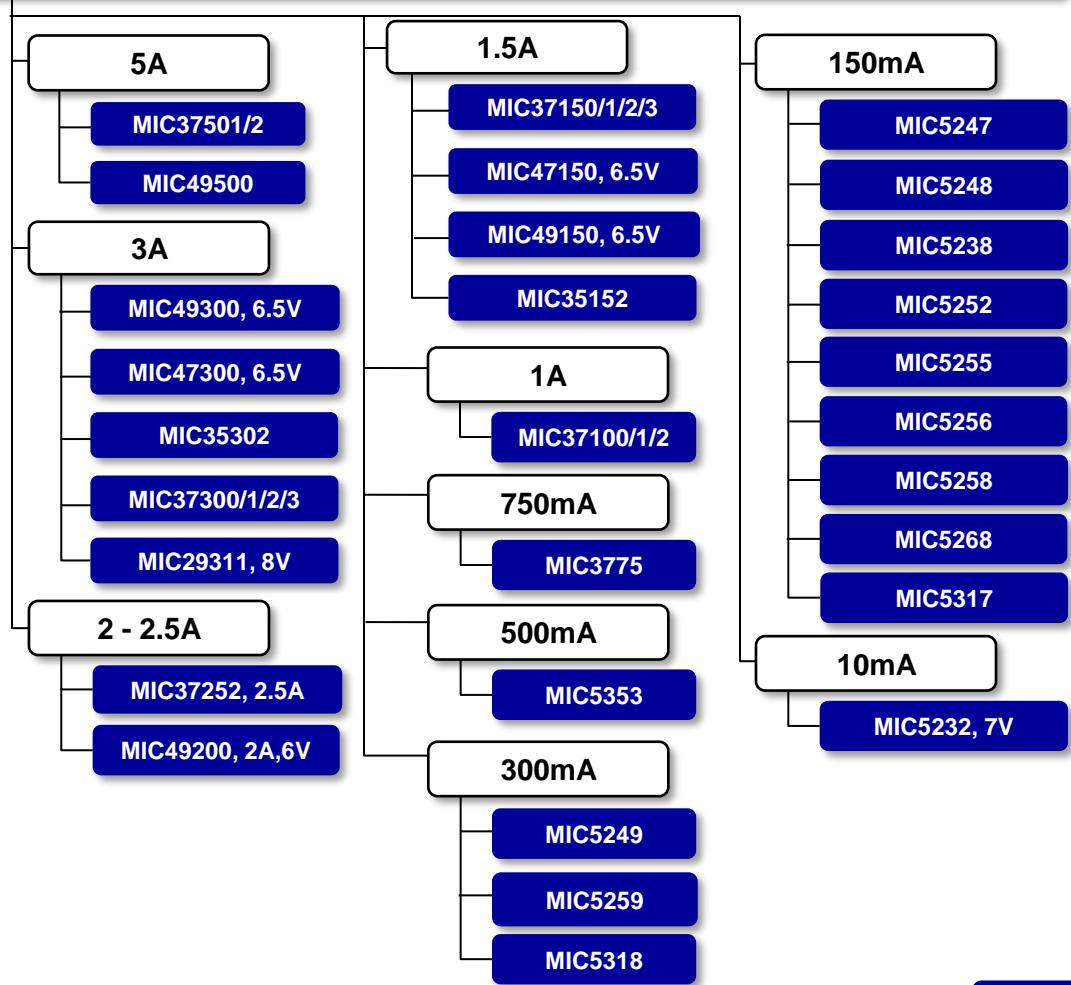
Low Dropout Regulators 6V – 16V

Product Tree

12V - 16V



6V - 8V



<< BACK

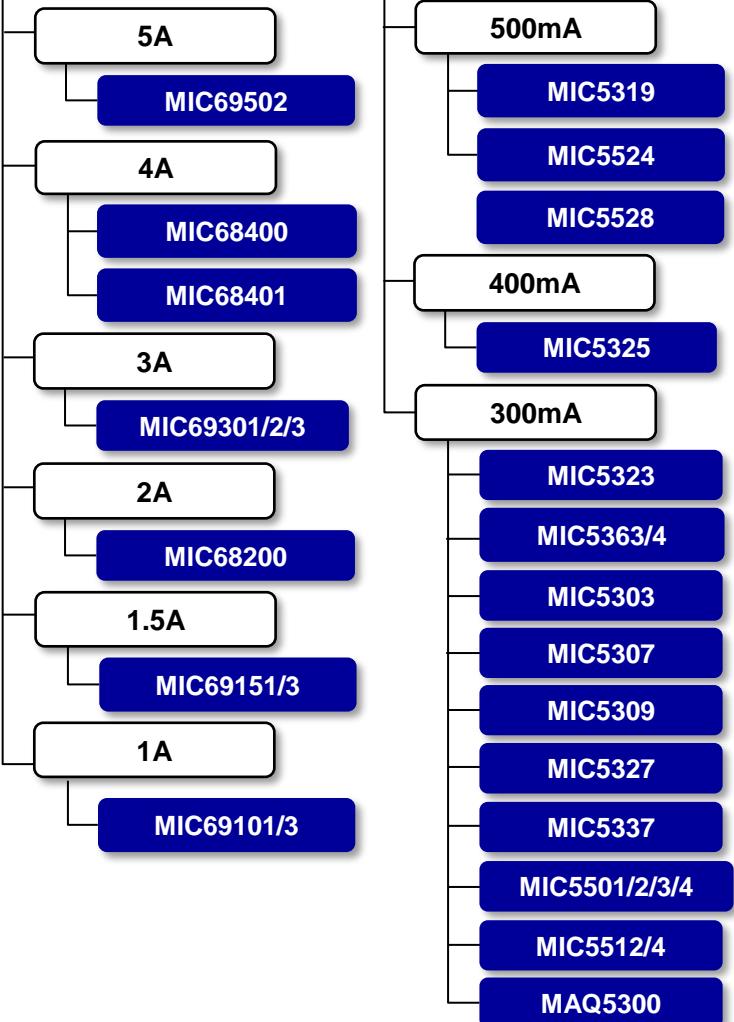


MICROCHIP

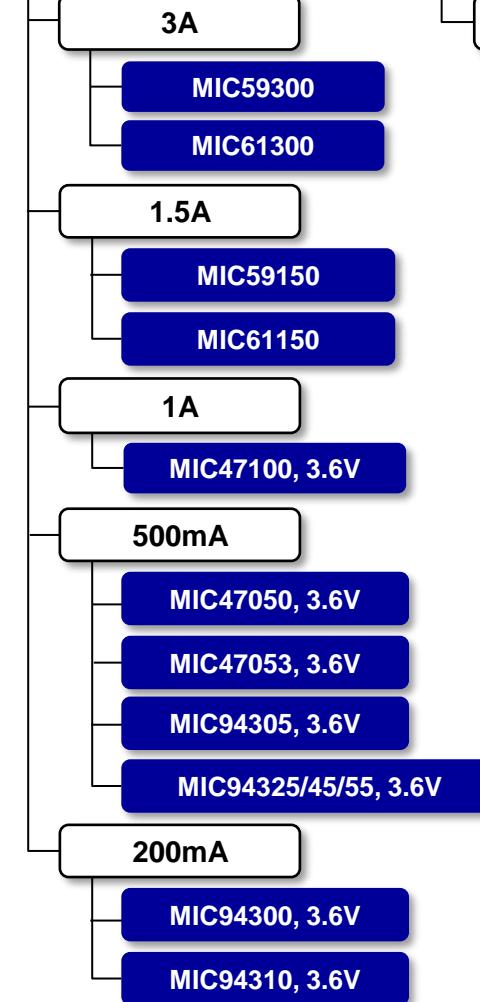
Low Dropout Regulators -16V – 5.5V

Product Tree

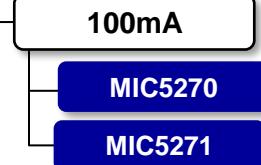
5.5V



3.6V – 3.8V



-16V



<< BACK

LDO Selector (Dual 150/150)

Choose your feature

High PSRR

Ultra Low Dropout

Small Size

**Low Power
(Low I_q)**

General Purpose

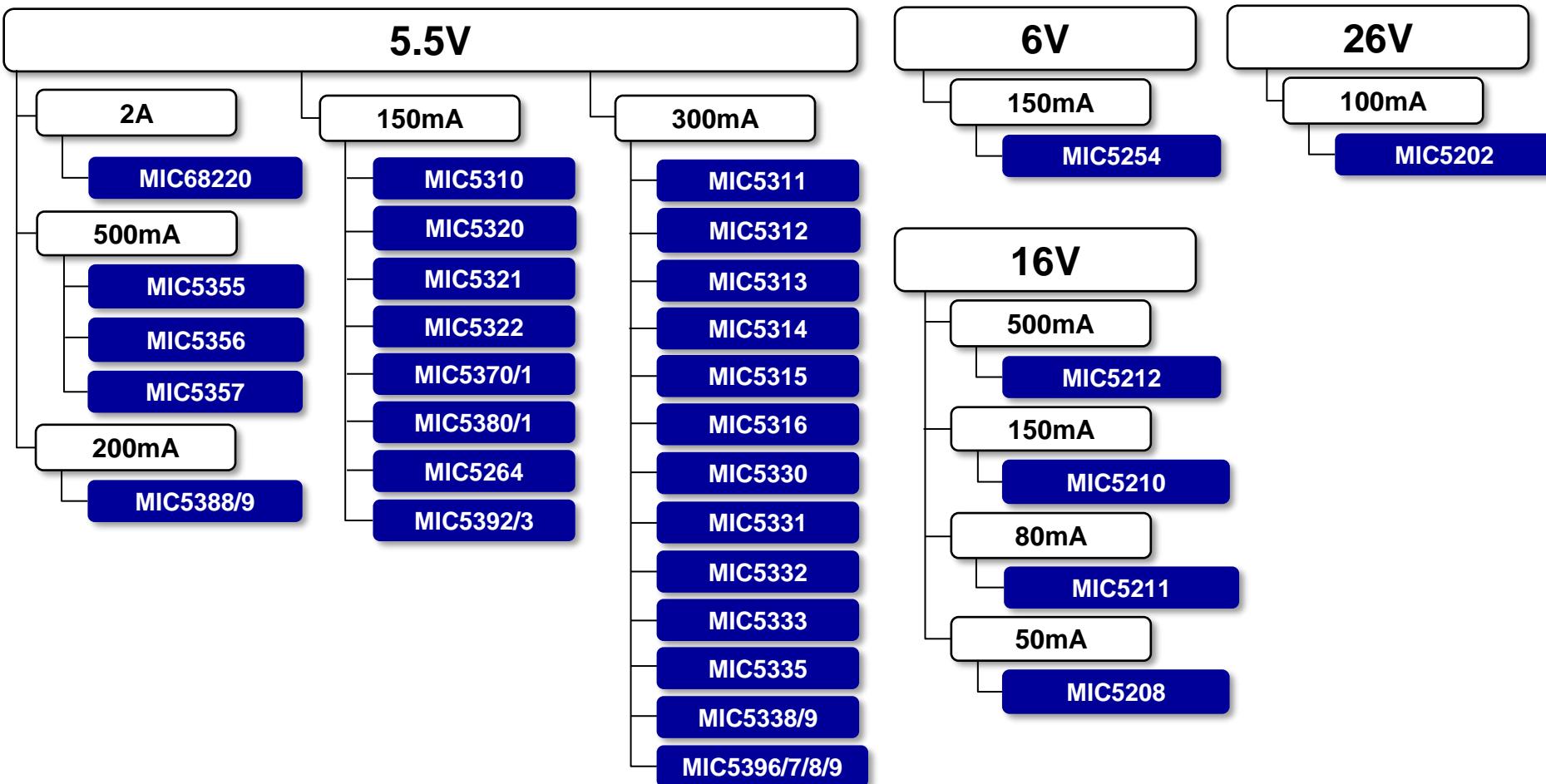


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Dual LDOs

$I_{OUT1} = I_{OUT2}$

Product Tree



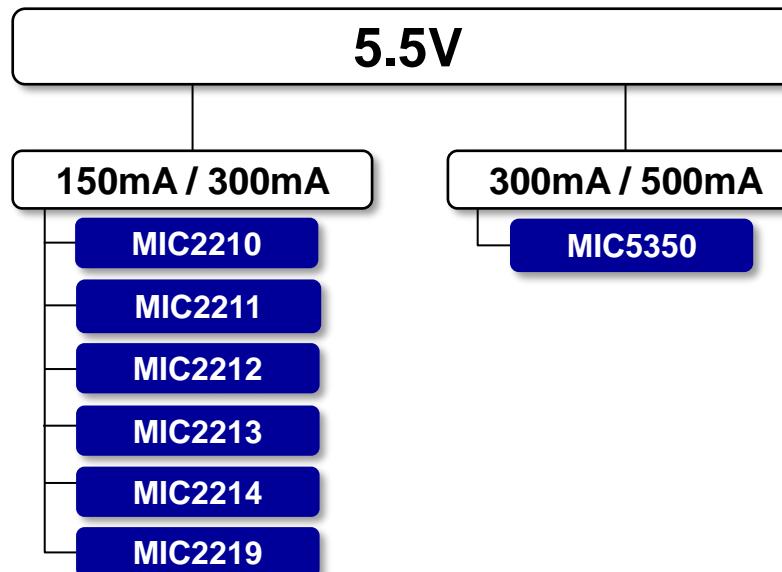
<< BACK



MICROCHIP

Dual LDOs $I_{OUT1} \neq I_{OUT2}$

Product Tree



HOME

<< BACK



MICROCHIP

Multi-Output LDOs

200mA / 200mA / 200mA / 1mA

MIC5374

MIC5384

250mA / 250mA / 250mA

MIC2215

150mA / 150mA / 150mA / 150mA

TC1307
4 Ch. Select Mode

200mA / 200mA / 200mA

MIC5373/83

150mA / 150mA / 150mA

MIC5385

MIC5387

[<< BACK](#)



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LDO Controllers

5.5V

MIC5159

MIC5190

MIC5191

36V

MIC5156/57/58



MICROCHIP

RippleBlocker™

RippleBlocker

200mA Output Current

**MIC94300
Input Follower**

**MIC94310
Fixed Output**

500mA Output Current

**MIC94305
Input Follower**

**MIC94325/45/55
Fixed Output**



MICROCHIP

AEC-Q100 Power Management

Product Tree

LDO
120V

150mA

MAQ5283

50mA

MAQ5282

25mA

MAQ5281

MAQ5280

Low-Side Driver
Dual Output

20V

3A

MAQ4123/4/5

HB LED Lighting
42V - 45V

Buck, External SW

MAQ3203, 42V

LDO
5.5V

300mA

MAQ5300

<< BACK



MICROCHIP

Low-Dropout Regulators

Product Tree

High Voltage

C MCP1702 13.2V
Low I_q, 250 mA

C MCP1703 16V
Low I_q, 250 mA

C MCP1703A 16V
Low I_q, 250 mA

C MCP1754/S 16V
PSRR, 150 mA

C MCP1755/S 16V
PSRR, 300 mA

C MCP1804
28V 150 mA

C MCP1790/1
30V Auto, 70 mA

50mA

TC1014/54

TC1070/2

C TC2014/54

TC1223

100mA

C TC1016 (80mA)

TC1015/55

C TC2015/55

TC1071/3

TC1224

TC1188/9 120mA

150mA

C MCP1711
Capless

TC1185/6/7

C TC2185/6

TC1017

C MCP1801

250mA

C MCP1700

MCP1701A

300mA

TC1107/8

TC1173/4

TC1269

C MCP1802

C MCP1824/S

500mA

C MCP1725

TC1262/3/8

C MCP1825/S

800mA

TC1264/5

TC2117

1A

C MCP1726

C MCP1826/S

1.5A

C MCP1727

C MCP1827/S

Application Specific LDOs

Negative LDO

TC59

LDO Combo ICs

TC1300/7

TC1303/4
LDO + Switcher

TC1313
LDO + Switcher

Dual LDOs

TC1301/2

LDO
Demo & Eval Boards

<< BACK

LDO Selector (High PSRR 150/150)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/150mA
- High PSRR

MIC5310

>70dB PSRR
35mV dropout

MIC5321

>75dB PSRR
35mV dropout

MIC5322

>75dB PSRR
35mV dropout



MICROCHIP

LDO Selector (ULDO 150/150)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/150mA
- Ultra Low Dropout

MIC5310

35mV dropout
>70dB PSRR

MIC5320

35mV dropout
1.6x1.6mm MLF

MIC5321

35mV dropout
>75dB PSRR

MIC5322

35mV dropout
>75dB PSRR

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Low Iq 150/150)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/150mA
- Low Power (Low Iq)

MIC5370/1

32 μ A Iq, $\pm 2\%$ accuracy
1.6x1.6mm MLF

MIC5380/1

32 μ A Iq, $\pm 1\%$ accuracy
1x1mm MLF

MIC5392/3

32 μ A Iq, $\pm 1\%$ accuracy
1.2x1.2mm MLF

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Small Size 150/150)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/150mA
- Small Size

MIC5370/1

**1.6x1.6mm MLF
32 μ A Iq, $\pm 2\%$ accuracy**

MIC5320

**1.6x1.6mm MLF
35mV dropout**

MIC5380/1

**1x1mm MLF
32 μ A Iq, $\pm 1\%$ accuracy**

MIC5321

**1.6x1.6mm MLF
35mV dropout**

MIC5392/3

**1.2x1.2mm MLF
32 μ A Iq, $\pm 1\%$ accuracy**

MIC5322

**1.6x1.6mm MLF
35mV dropout**

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (General 150/150)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/150mA
- General Purpose

MIC5210
>>70dB PSRR
35mV dropout

HOME

<< BACK



MICROCHIP

LDO Selector (150/300)

Choices Made

- Dual Output
- 6Vin Max
- 150mA/300mA

MIC2210
3x3mm MLF®

MIC2211
3x3mm MLF®

MIC2212
3x3mm MLF®
POR Function

MIC2213
3x3mm MLF®
1 Open-drain driver

MIC2214
3x3mm MLF®

MIC2219
3x3mm MLF®
Externally Accessible
Feedback Pins

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (200/200)

Choices Made

- Dual Output
- 6Vin Max
- 200mA/200mA

MIC5388/9

1.5X1.0mm WLCSP
±2% Accuracy

HOME

<< BACK

LDO Selector (Dual 300/300)

Choose your dimensions (mm)

1.2 x 1.6

1.6 x 1.6

2.0 x 2.0

2.5 x 2.5

3.0 x 3.0



MICROCHIP

LDO Selector (1.2x1.6mm 300/300)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/300mA
- 1.2mm x 1.6mm

MIC5396/7/8/9
1.2x1.6mm DFN

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (1.6x1.6mm 300/300)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/300mA
- 1.6mm x 1.6mm

MIC5335
1.6x1.6mm MLF
High PSRR >65dB

MIC5338/9
1.6x1.6mm MLF
± Output Accuracy

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (2.0x2.0mm 300/300)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/300mA
- 2.0mm x 2.0mm

MIC5313

2.0x2.0mm MLF®

MIC5331

2.0x2.0mm MLF®
>65dB PSRR

MIC5315

2.0x2.0mm MLF®
Voltage Select Function

MIC5332

2.0x2.0mm MLF®
>65dB PSRR

MIC5330

2.0x2.0mm MLF®
>70dB PSRR

HOME

<< BACK



MICROCHIP

LDO Selector (2.5x2.5mm 300/300)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/300mA
- 2.5mm x 2.5mm

MIC5314
2.5x2.5mm MLF
85mV dropout

MIC5316
2.5x2.5mm MLF
85mV dropout

MIC5333
2.5x2.5mm MLF
High PSRR >65dB

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (3.0x3.0mm 300/300)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/300mA
- 3.0mm x 3.0mm

MIC5311
3.0x3.0mm MLF
LowQ® Mode

MIC5312
3.0x3.0mm MLF
LowQ® Mode with
Integrated POR

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (300/500)

Choices Made

- Dual Output
- 6Vin Max
- 300mA/500mA

MIC5350
2.0x2.0mm MLF
±2% Accuracy,
Fast Startup

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (500/500)

Choices Made

- Dual Output
- 6Vin Max
- 500mA/500mA

MIC5212
 $\pm 1\%$ Initial Accuracy
Low Dropout and Low Iq

MIC5355/6
8pin ePad MSOP
 $\pm 2\%$ initial Accuracy

MIC5357
8pin ePad MSOP
38 μ s start up time

HOME

<< BACK



MICROCHIP

LDO Selector (2A/2A)

Choices Made

- Dual Output
- 6Vin Max
- 2A/2A

MIC68220
Programmable Ramp
Control™,
3.0x3.0mm MLF

[HOME](#)

[<< BACK](#)

LDO Selector (Dual 10-26Vin Max)

Choices Made

- Dual Output
- 10-26Vin Max

MIC5208

16Vin Max, 50mA/50mA
Micrel Mini 8® MSOP

MIC5210

16Vin Max, 150mA/150mA
SOT-23 Package

MIC5211

16Vin Max, 80mA/80mA
SOT-23 Package

MIC5212

16Vin Max, 500mA/500mA
SOIC-8 Package

MIC5202

26Vin Max, 100mA/100mA
8pin SOIC Package

LDO Selector (3-4 Output 150/150/150)

Choices Made

- 3-4 Output
- 6Vin Max
- 150/150/150mA

MIC5385

150/150/150mA
2.0x2.0mm MLF®
70dB PSRR

MIC5387

150/150/150mA
1.6x1.6mm MLF®
70dB PSRR

LDO Selector (3-4 Output 200/200/200)

Choices Made

- 3-4 Output
- 6Vin Max
- 200/200/200mA

MIC5373/83
200/200/200mA
2.5x2.5mm MLF®
55dB PSRR

LDO Selector (3-4 Output 250/250/250)

Choices Made

- 3-4 Output
- 6Vin Max
- 250/250/250mA

MIC2215
250/250/250mA
4.0x4.0mm MLF®
70dB PSRR



LDO Selector (3-4 Output 200/200/200/1)

Choices Made

- 3-4 Output
- 6Vin Max
- 200/200/200/1mA

MIC5374/84
200/200/200/1mA
2.5x2.5mm QFN®
55dB PSRR



MICROCHIP

RippleBlocker™

What is the current output?

200mA Output Current

500mA Output Current

HOME

<< BACK

Ripple Blocker™ (200mA)

Choices Made

- Ripple Blocker™
- 200mA Output Current

MIC94300
Input Follower
1.2mm x 1.6m MLF®

MIC94310
Fixed Output
1.2mmx1.6mm DFN



MICROCHIP

Ripple Blocker™ (500mA)

Choices Made

- Ripple Blocker™
- 500mA Output Current

MIC94305
Input Follower
1.6mmx1.6mm DFN

MIC94325/45/55
Fixed Output
1.6mmx1.6mm DFN

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Controller

What is the MAX input voltage range?

5.5V

36.0V

This is not the range of input voltages, only the Max VIN!

HOME

<< BACK

LDO Controller (5.5V Max Vin)

Choices Made

- LDO Controller
- 5.5 Max Vin

MIC5159
IttyBitty® SOT-23-6
Package

MIC5190
3x3mm MLF® and
MSOP-10

MIC5191
10-lead MLF® and
MSOP-10



MICROCHIP

LDO Controller (36V Max Vin)

Choices Made

- LDO Controller
- 36V Max Vin

MIC5156/57/58
Available in DIP and SOIC
Optional Current Limit
(35mV)

[HOME](#)

[<< BACK](#)



MICROCHIP

MAQ5283

120V_{IN} 150mA Ultra-Low I_Q High-PSRR Linear Regu

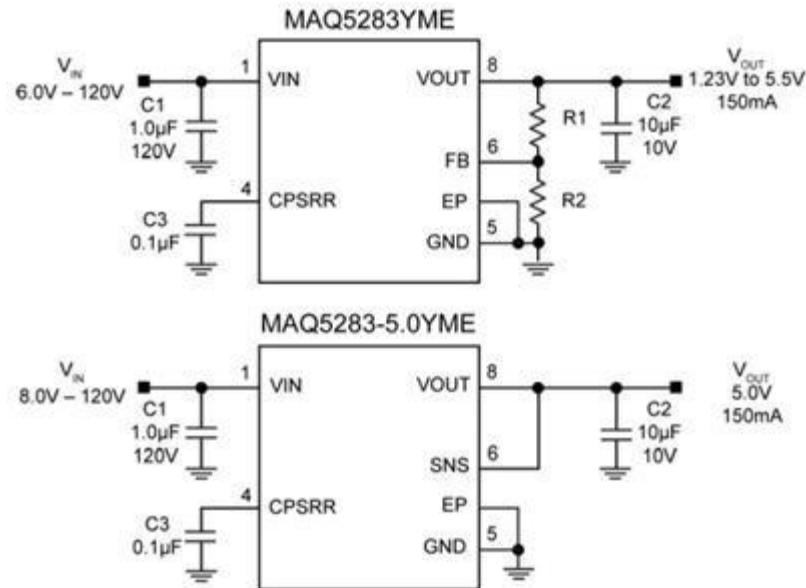


Recommended for
Automotive Designs

Online
Datasheet

Features:

- AEC-Q100 qualified
- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 8µA
- 150mA guaranteed output current
- Adjustable output from 1.23V to 5.5V
- Stable with ceramic capacitors
- Ultra-high PSRR (75dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy: $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient, 8-pin ePad SOIC package
- Recommended for Automotive Design



HOME

<< BACK



MICROCHIP

MAQ5282

120V_{IN} 50mA Ultra-Low I_Q High-PSRR Linear Regu

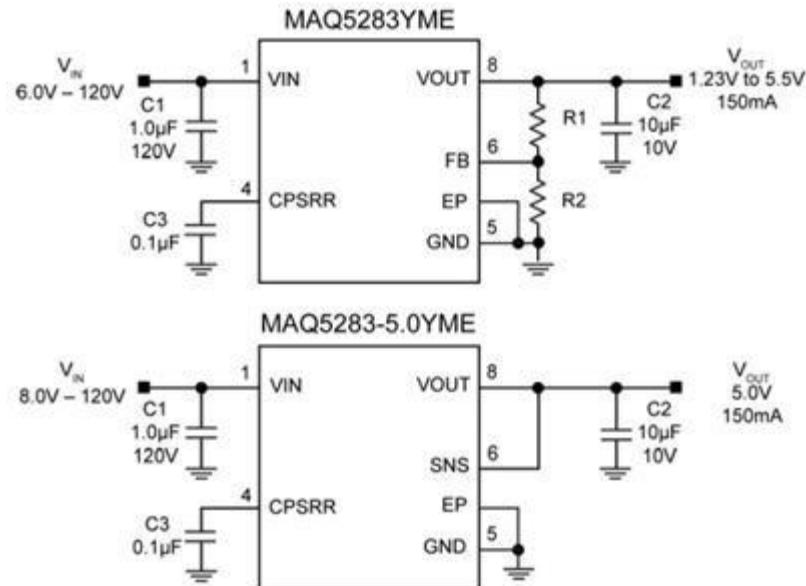


Recommended for
Automotive Designs

Online
Datasheet

Features:

- AEC-Q100 qualified
- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6µA
- 50mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR (80dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy: $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad MSOP package
- Recommended for Automotive Design



HOME

<< BACK



MICROCHIP

MAQ5281

120VIN 25mA Ultra-Low IQ High-PSRR Linear Reg.

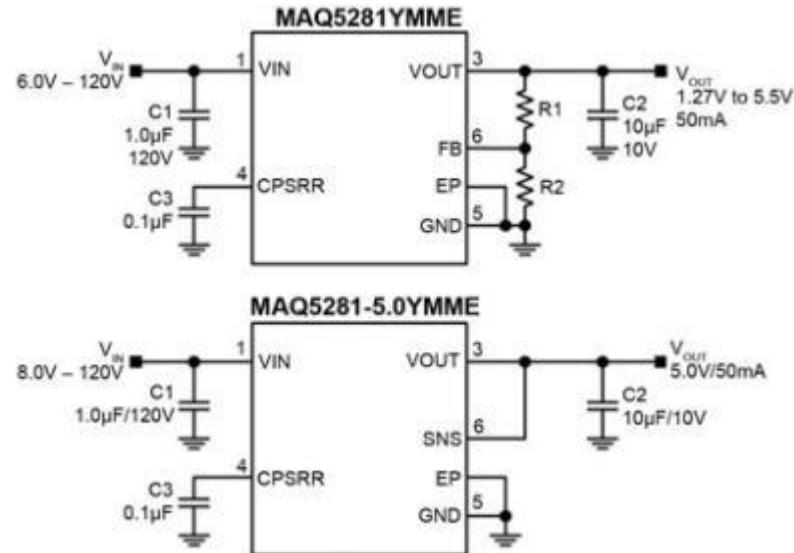


Recommended for
Automotive Designs

Online
Datasheet

Features:

- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6 μ A
- 25mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR <90dB
- Ultra-high line rejection (load dump)
- High output accuracy:
 - $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad MSOP package
- Recommended for Automotive Design



HOME

<< BACK



MICROCHIP

MAQ5280

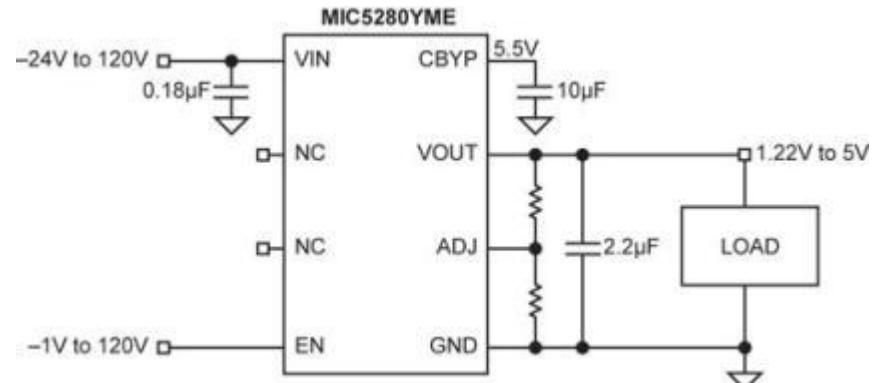
25mA 120V Low IQ High-PSRR LDO



Online
Datasheet

Features:

- Wide input voltage range: 4.5V to 120V DC
- Very low quiescent current: 31 μ A typical
- 25mA guaranteed output current
- Adjustable output from 1.215V to 5V
- DC voltage protection down to -24V
- Ability to withstand up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra high PSRR >80dB for RF applications
- High output accuracy
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature (-40°C to +125°C)
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad SOIC package
- Recommended for Automotive Design



[HOME](#)

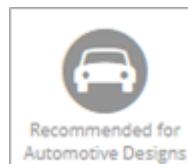
[<< BACK](#)



MICROCHIP

MAQ5300

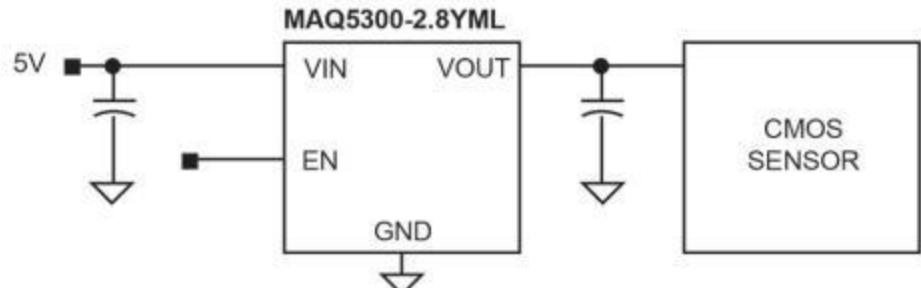
Automotive Qualified Single Output 300mA μ Cap LDO



Online
Datasheet

Features:

- Small 2mm × 2mm DFN package
- Low dropout voltage: 100mV at 300mA
- Output noise $120\mu\text{V}_{\text{RMS}}$
- Input voltage range: 2.3V to 5.5V
- 300mA guaranteed output current
- Stable with ceramic output capacitors
- Low quiescent current: 85 μA total
- 30 μs turn-on time
- High output accuracy
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current-limit protection
- Recommended for Automotive Design (MAQ5300)



[HOME](#)

[<< BACK](#)



MICROCHIP

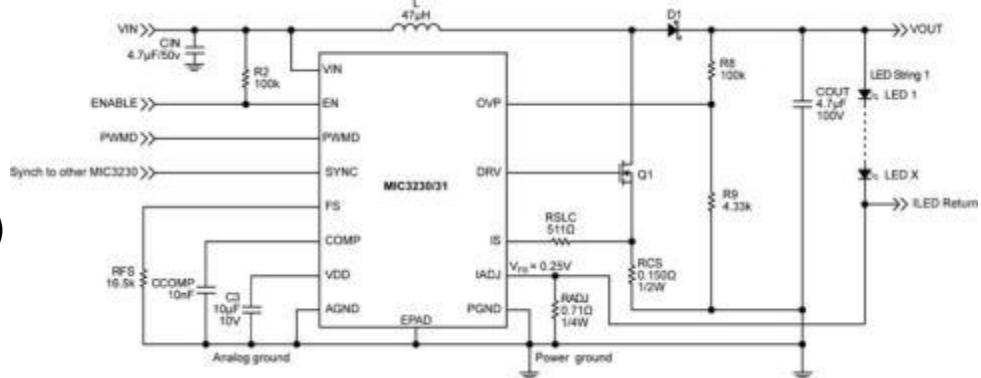
MIC3230/1/2

Constant Current Boost Controller for Driving High Power LEDs

Online
Datasheet

Features:

- 6V to 45V input supply range
- Capable of driving up to 70W
- Ultra-low EMI via dithering (MIC3231)
- Programmable LED drive current
- Feedback voltage = 250mV $\pm 3\%$
- Programmable switching frequency (MIC3230/1) or 400kHz fixed frequency operation (MIC3232)
- PWM dimming and separate enable shutdown
- Frequency synchronization with other MIC3230s
- Protection features:
 - Over voltage protection (OVP)
 - Over-temperature protection
 - Under voltage lockout (UVLO)
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

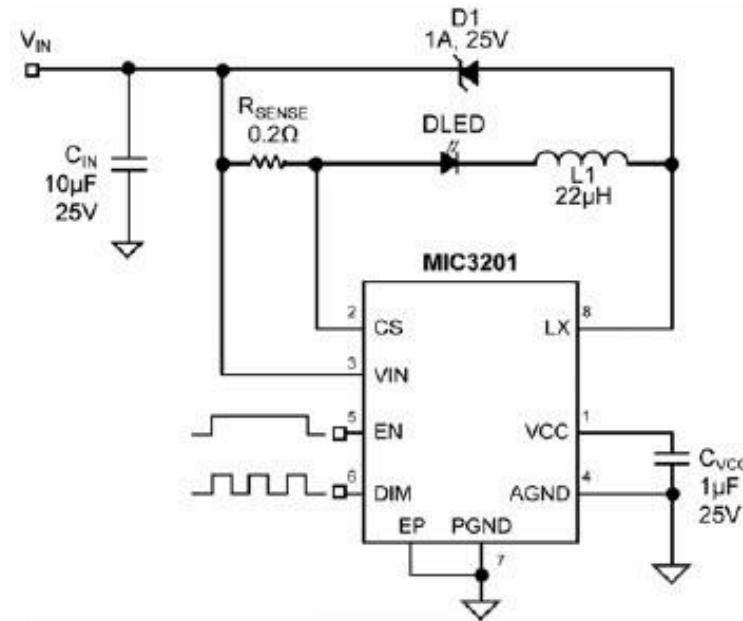
MIC3201

High Brightness LED Driver with High-Side Current Sense

Online
Datasheet

Features:

- 6.0V to 20V input voltage range
- High efficiency (>90%)
- $\pm 5\%$ LED current accuracy
- High-side current sense
- Dedicated dimming control input
- Hysteretic control (no compensation!)
- 1A internal power switch
- Up to 1MHz switching frequency
- Adjustable constant LED current
- 5V on board regulator
- Over-temperature protection
- -40°C to $+125^{\circ}\text{C}$ Junction temperature range
- Available in an 8-Pin ePad SOIC package



[HOME](#)

[<< BACK](#)



MICROCHIP

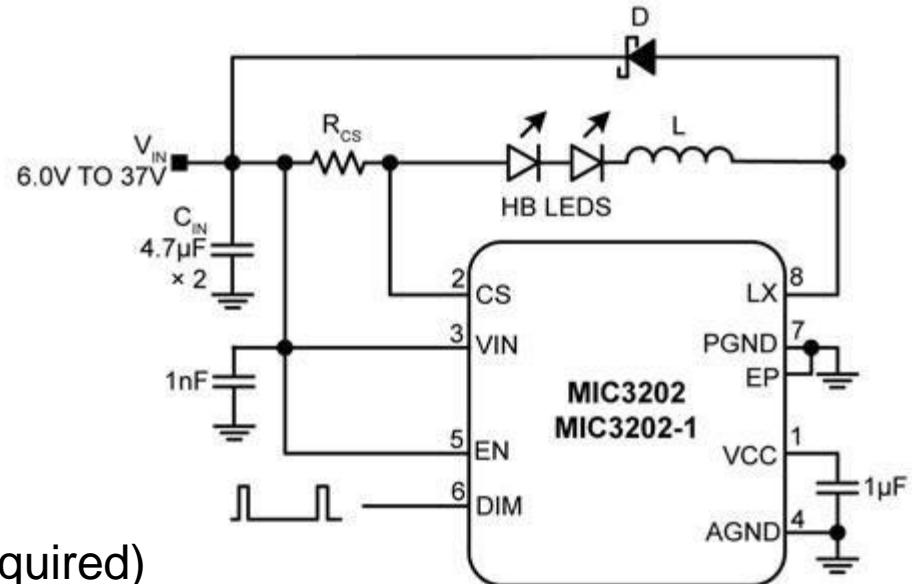
MIC3202/-1

High-Brightness LED Driver w/Integrated MOSFET and High-Side Current Sense

Online
Datasheet

Features:

- 6V to 37V input voltage range
- High efficiency (>90%)
- $\pm 5\%$ LED current accuracy
- MIC3202: Dither enabled for low EMI
- MIC3202-1: Dither disabled
- High-side current sense (up to 1A)
- Dedicated dimming control input
- Hysteretic control (no compensation required)
- Up to 1MHz switching frequency
- Adjustable constant LED current
- Over-temperature protection
- -40°C to $+125^{\circ}\text{C}$ junction temperature range



HOME

<< BACK



MICROCHIP

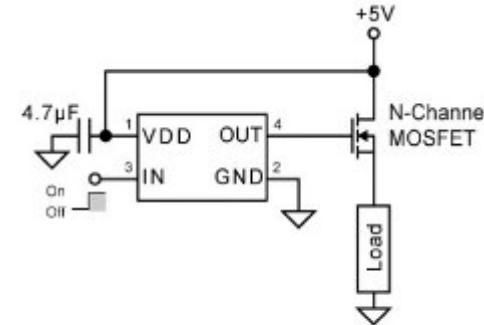
MIC5019

Ultra Small High-Side N-Channel MOSFET Driver with Integrated Charge Pump

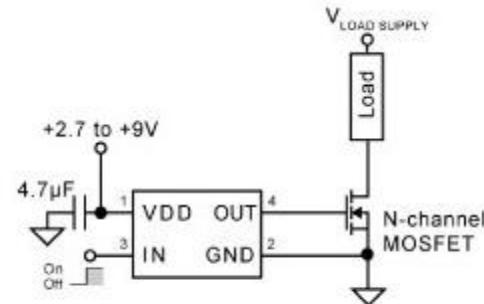
Online
Datasheet

Features:

- 4-pin 1.2mm x 1.2mm Thin QFN Package
- +2.7V to +9V supply voltage range
- 16V gate drive at VDD = 9V
- 8V gate drive at VDD = 2.7V
- Operates in low and high side configurations
- 150 μ A (typical) supply current at VDD = 5V
- <1 μ A shutdown supply current
- -40 $^{\circ}$ C to +125 $^{\circ}$ C Junction Temperature Range



Low-Voltage High-Side Power Switch



Low-Side Power Switch

[HOME](#)

[<< BACK](#)



MICROCHIP

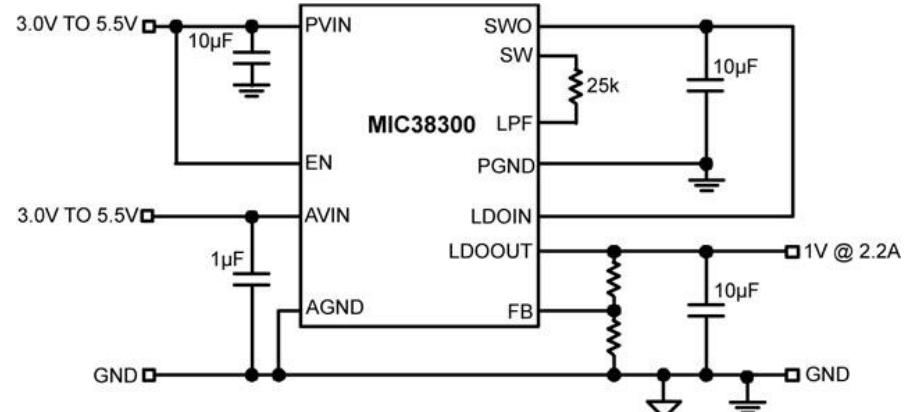
MIC38300

HELDOR® 3A High Efficiency Low Dropout Regulator

Online
Datasheet

Features:

- 3A peak output current
- 2.2A continuous operating current
- Input voltage range: 3.0V to 5.5V
- Adjustable output voltage down to 1.0V
- Output noise less than 5mV
- Ultra fast transient performance
- Unique switcher plus LDO architecture
- Fully integrated MOSFET switches
- Micro-power shutdown
- Easy upgrade from LDO as power dissipation becomes an issue
- Thermal shutdown and current limit protection
- 4mm x 6mm x 0.9mm MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

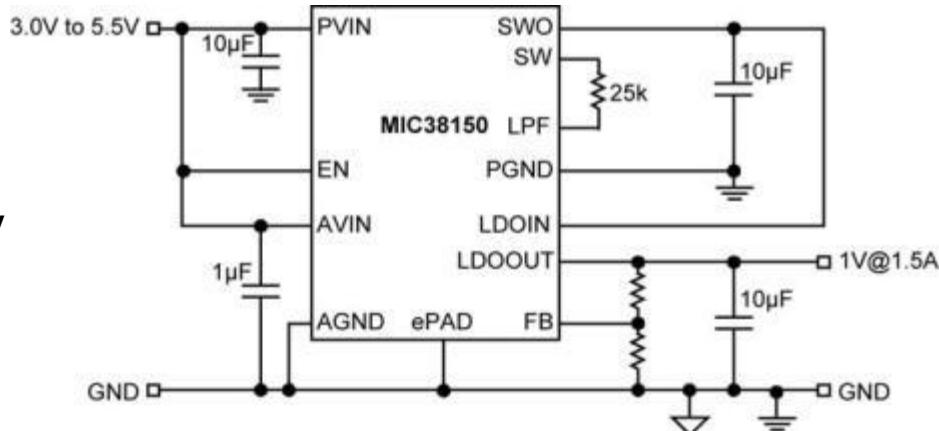
MIC38150

HELD® 1.5A High Efficiency Low Dropout Regulator

Online
Datasheet

Features:

- Output current up to 1.5A
- Input voltage range: 3.0V to 5.5V
- Adjustable output voltage down to 1.0V
- Output noise less than 5mV
- Ultra fast transient performance
- Unique switcher plus LDO architecture
- Fully integrated MOSFET switches
- Micro-power shutdown
- Easy upgrade from LDO as power dissipation becomes an issue
- Thermal shutdown and current limit protection
- 4mm x 6mm x 0.9mm MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

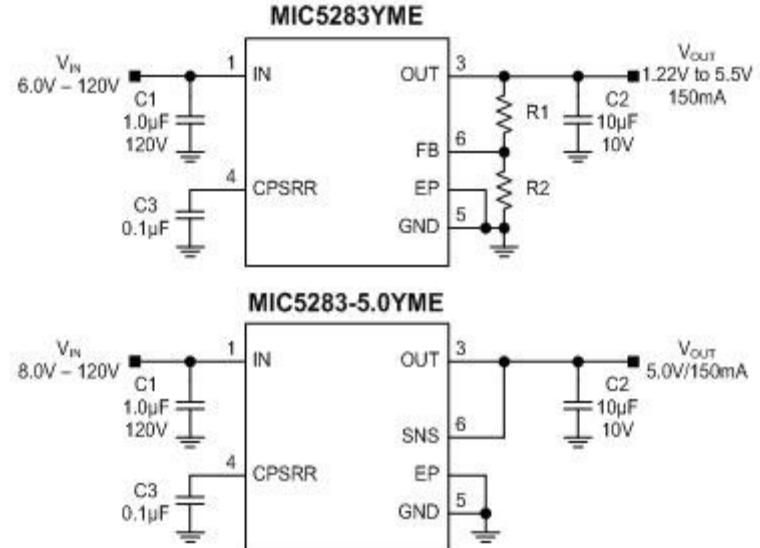
MIC5283

120V 150mA Ultra-Low IQ High-PSRR Linear Regulator

Online
Datasheet

Features:

- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 8 μ A
- 150mA guaranteed output current
- Adjustable output from 1.22V to 5.5V
- Stable with ceramic output capacitors
- Ultra-high PSRR (75dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy:
 - $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad SOIC packages
- Very low profile 3mm x 3mm MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

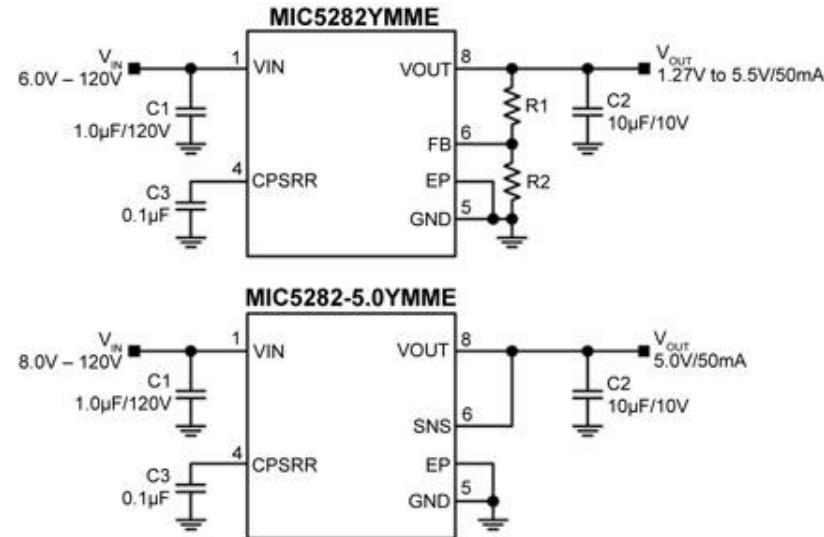
MIC5282

120V 50mA Ultra-Low IQ High-PSRR Linear Regulator

Online
Datasheet

Features:

- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6 μ A
- 50mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR (80dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy:
 - $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient, 8-pin MSOP and 8-pin ePad MSOP packages



[HOME](#)

[<< BACK](#)



MICROCHIP

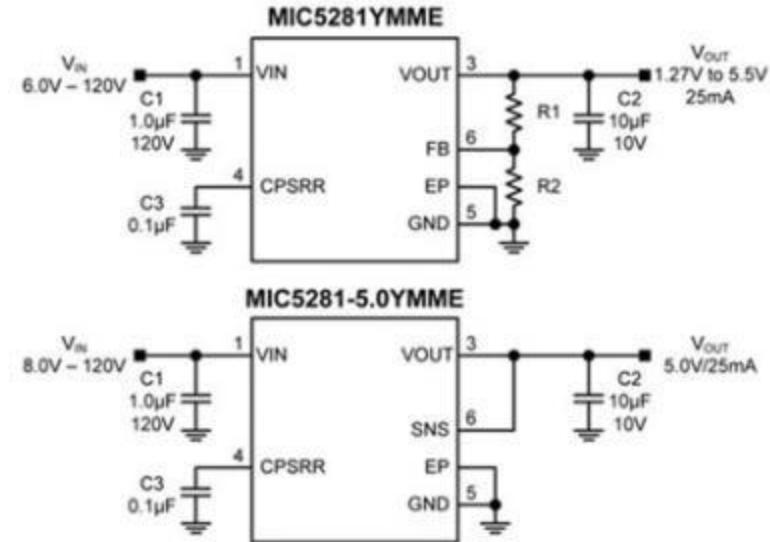
MIC5281

120V 25mA Ultra-Low IQ High-PSRR Linear Regulator

Online
Datasheet

Features:

- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6 μ A
- 25mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR <90dB
- Ultra-high line rejection (load dump)
- High output accuracy:
 - $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin MSOP and 8-pin ePad MSOP packages



HOME

<< BACK



MICROCHIP

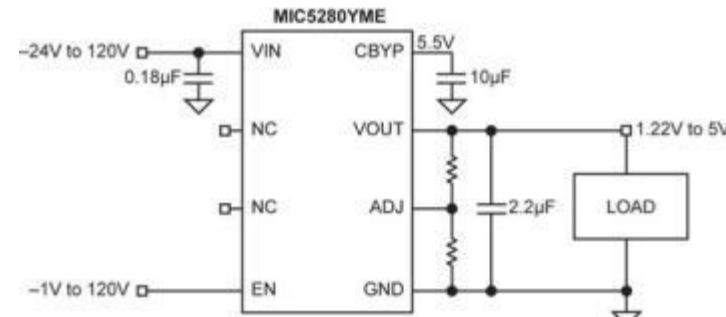
MIC5280

120V 25mA Low IQ High-PSRR Linear Regulator

Online
Datasheet

Features:

- Wide input voltage range: 4.5V to 120V DC
- Very low quiescent current: 31 μ A typical
- 25mA guaranteed output current
- Adjustable output from 1.215V to 5V
- DC voltage protection down to -24V
- Ability to withstand up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR >80dB for RF applications
- High output accuracy
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature (-40°C to +125°C)
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad SOIC package



[HOME](#)

[<< BACK](#)



MICROCHIP

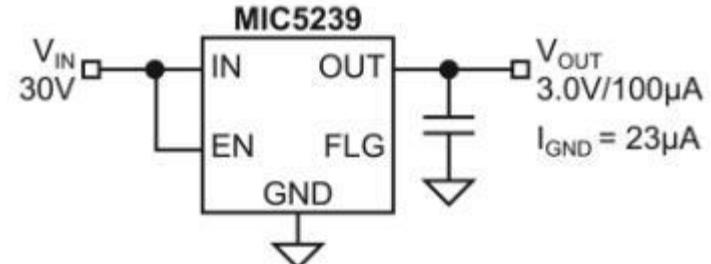
MIC5239

Low Quiescent Current 500mA μ Cap LDO

Online
Datasheet

Features:

- Ultra-low quiescent current ($I_Q = 23\mu A$ @ $I_O = 100\mu A$)
- Continuous 500mA output current
- Wide input range: 2.3V to 30V
- Low dropout voltage: 350mV at 500mA
- $\pm 1.0\%$ initial output accuracy
- Stable with ceramic or tantalum output capacitor
- Logic-compatible enable input
- Low output voltage error flag indicator
- Overcurrent protection
- Thermal shutdown
- Reverse leakage protection
- Reverse battery protection
- High power SOIC-8, MSOP-8 and SOT-223 packages



HOME

<< BACK



MICROCHIP

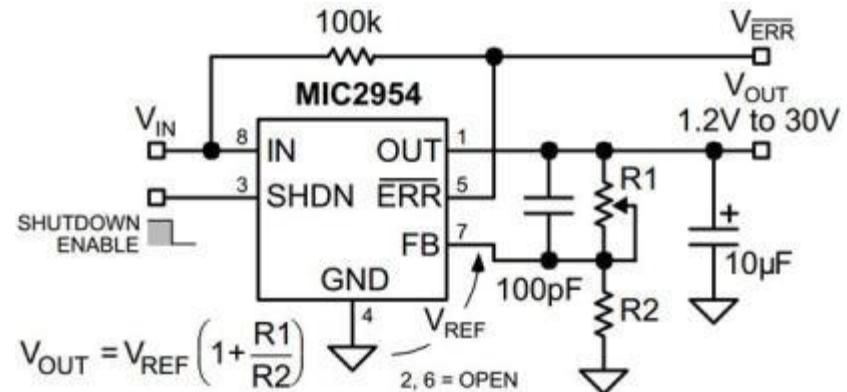
MIC2954

250mA LDO

Online
Datasheet

Features:

- High-accuracy: 5V, guaranteed 250mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Input can withstand -20V reverse battery and +60V positive transients
- Error flag warns of low output voltage
- Logic-controlled electronic shutdown
- Output programmable from 1.24V to 29V (MIC2954-07/08)
- Available in TO-220, TO-92, and surface-mount SOT-223 and SOP-8 packages



HOME

<< BACK



MICROCHIP

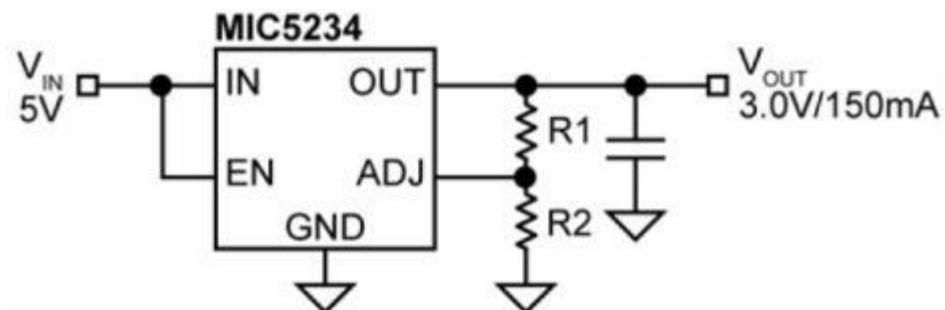
MIC5234

Low-Quiescent Current 150mA LDO

Online
Datasheet

Features:

- Ultra-low quiescent current (I_Q equals 20 μ A at I_O equals 100 μ A)
- Wide input voltage range: 2.3V to 30V
- Low dropout:
 - 230mV at 50mA
 - 320mV at 150mA
- Adjustable output voltage
- Typical $\pm 1.0\%$ initial output accuracy
- Logic-compatible enable input
- Overcurrent protection
- Thermal shutdown protection
- Reverse leakage and reverse battery protection
- Thermally enhanced 8-pin ePad SOIC package



[HOME](#)

[<< BACK](#)



MICROCHIP

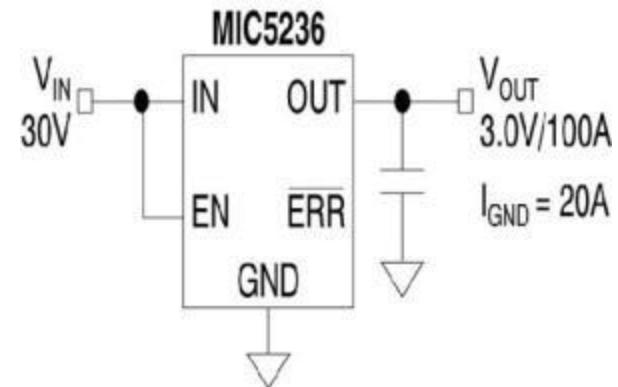
MIC5236

Low Quiescent Current μ Cap LDO

Online
Datasheet

Features:

- Ultra-low quiescent current (I_Q equals 20 μ A at I_O equals 100 μ A)
- Wide input range: 2.3V to 30V
- Low dropout:
 - 230mV at 50mA;
 - 300mV at 150mA
- Fixed 2.5V, 3.0V, 3.3V, 5.0V and adjustable outputs
- $\pm 1.0\%$ initial output accuracy
- Stable with ceramic or tantalum output capacitor
- Load dump protection: -20V to +60V input transient survivability
- Logic-compatible enable input
- Low output flag indicator
- Reverse leakage protection
- Reverse battery protection
- High power SOP-8 and MSOP-8



HOME

<< BACK



MICROCHIP

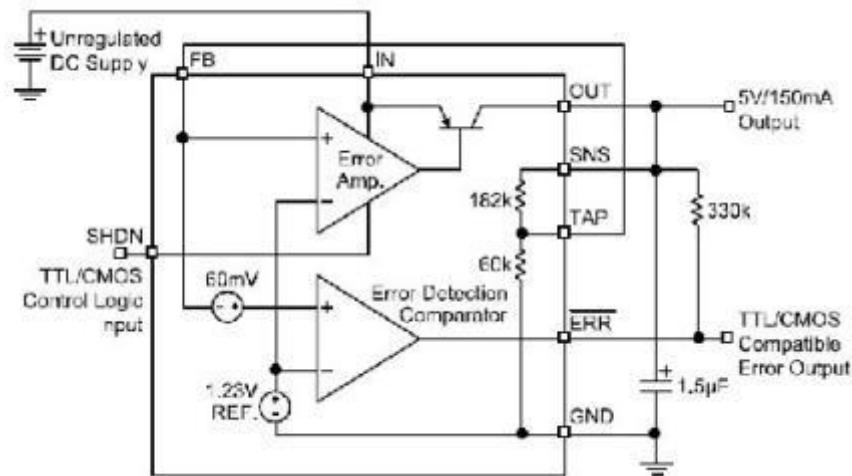
MIC2951

150mA LDO

Online
Datasheet

Features:

- High accuracy: 3.3V, 4.85V, or 5V with guaranteed 150mA output
- Extremely low quiescent current
- Low-dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Use as regulator or reference
- Needs only $1.5\mu F$ for stability
- Current and thermal limiting
- Unregulated DC input can withstand $-20V$ reverse battery and $+60V$ positive transients
- Error flag warns of output dropout
- Logic-controlled electronic shutdown
- Output programmable from 1.24V to 29V



HOME

<< BACK



MICROCHIP

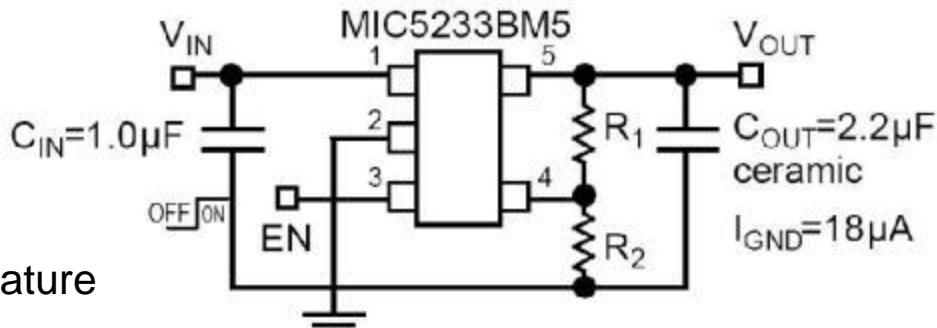
MIC5233

High Input Voltage Low IQ μ Cap LDO

Online
Datasheet

Features:

- Wide input voltage range: 2.3V to 36V
- Ultra-low ground current: 18 μ A
- Low dropout voltage of 270mV at 100mA
- High output accuracy of $\pm 2.0\%$ over temperature
- μ Cap: stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Zero off-mode current
- Reverse battery protection
- Reverse leakage protection
- Thermal shutdown and current limit protection
- IttyBitty® SOT-23-5 package



HOME

<< BACK



MICROCHIP

MIC5233

High Input Voltage Low IQ μ Cap LDO

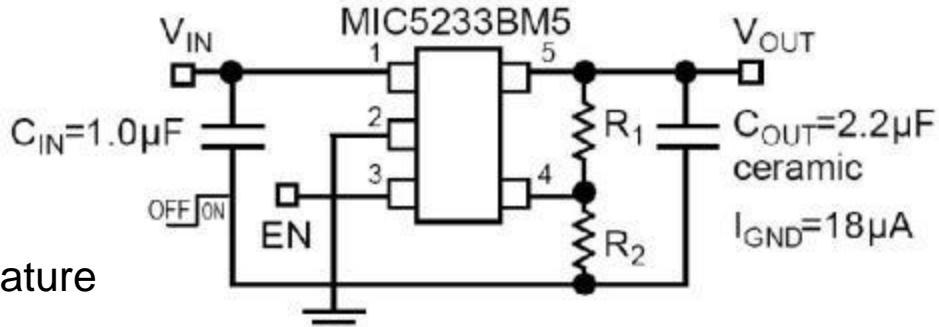


Recommended for
Automotive Designs

Online
Datasheet

Features:

- Wide input voltage range: 2.3V to 36V
- Ultra-low ground current: 18 μ A
- Low dropout voltage of 270mV at 100mA
- High output accuracy of $\pm 2.0\%$ over temperature
- μ Cap: stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Zero off-mode current
- Reverse battery protection
- Reverse leakage protection
- Thermal shutdown and current limit protection
- IttyBitty® SOT-23-5 package
- Recommended for Automotive Design



HOME

<< BACK



MICROCHIP

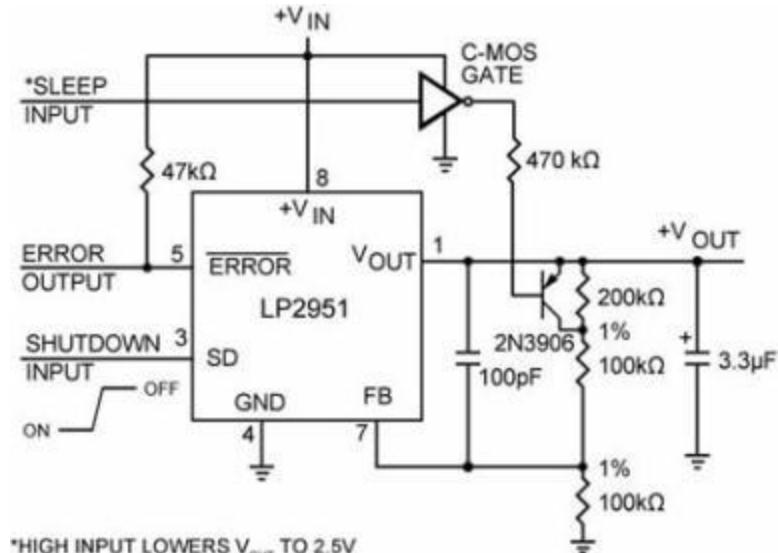
LP2951

100mA LDO

Online
Datasheet

Features:

- High accuracy 5V, guaranteed 100 mA output
- Extremely low quiescent current
- Low-dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Use as regulator or reference
- Needs only 1 μ F for stability
- Current and thermal limiting
- LP2951 Versions Only
 - Error flag warns of output dropout
 - Logic-controlled electronic shutdown
 - Output programmable from 1.24V to 29V



*HIGH INPUT LOWERS V_{OUT} TO 2.5V

HOME

<< BACK



MICROCHIP

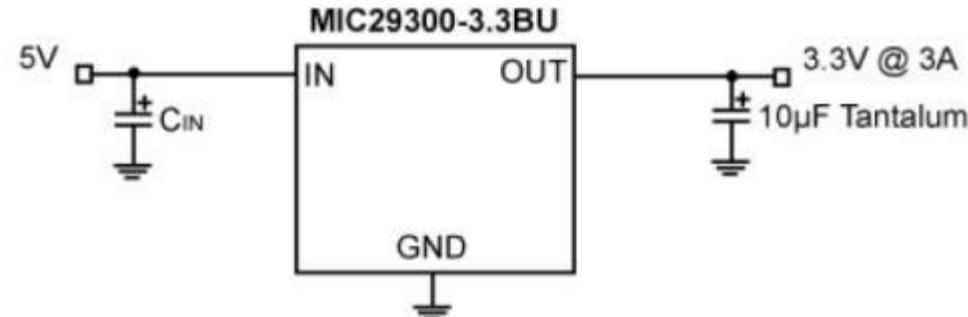
MIC29500/1/2/3

High-Current LDOs

Online
Datasheet

Features:

- High current capability
 - MIC29150/29151/29152/29153: 1.5A
 - MIC29300/29301/29302/29303: 3A
 - MIC29500/29501/29502/29503: 5A
 - MIC29750/29751/29752: 7.5A
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Reverse-battery and load dump protection
- Zero-current shutdown mode (5-pin versions)
- Error flag signals output out-of-regulation (5-pin versions)
- Also characterized for smaller loads with industry-leading performance specifications
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

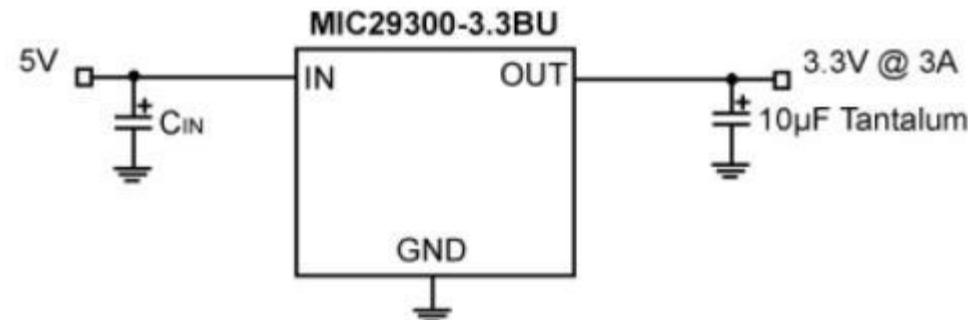
MIC29300/1/2/3

High-Current LDOs

Online
Datasheet

Features:

- High current capability
 - MIC29150/29151/29152/29153: 1.5A
 - MIC29300/29301/29302/29303: 3A
 - MIC29500/29501/29502/29503: 5A
 - MIC29750/29751/29752: 7.5A
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Extremely fast transient response
- Reverse-battery and load dump protection
- Zero-current shutdown mode (5-pin versions)
- Error flag signals output out-of-regulation (5-pin versions)
- Also characterized for smaller loads with industry-leading performance specifications
- Fixed voltage and adjustable versions



[HOME](#)

[<< BACK](#)



MICROCHIP

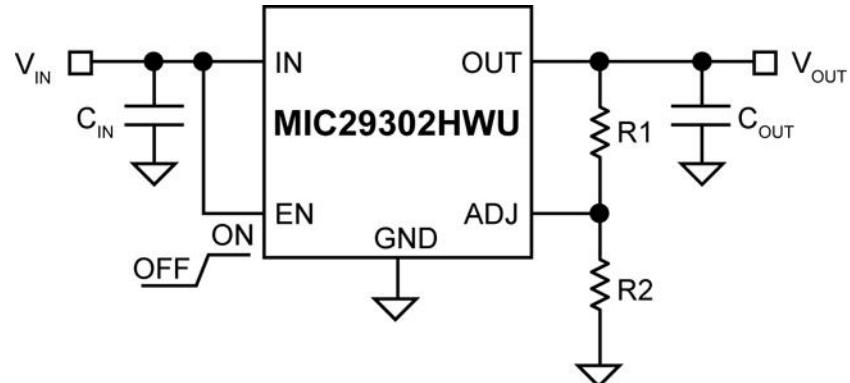
MIC29302HWU

High-Current LDO

Online
Datasheet

Features:

- 3A current capability
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Extremely fast transient response
- Reverse-battery and “Load Dump” protection
- Zero-current shutdown mode
- Error flag signals output out-of-regulation
- Also characterized for smaller loads with industry-leading performance specifications



HOME

<< BACK



MICROCHIP

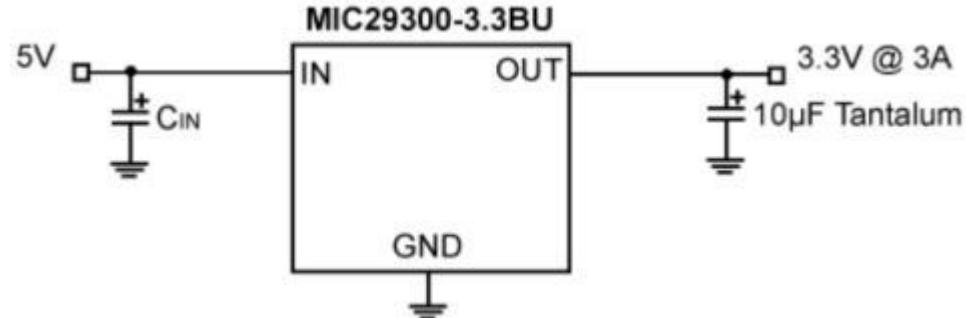
MIC29150/1/2/3

High-Current LDOs

Online
Datasheet

Features:

- High current capability
 - MIC29150/29151/29152/29153: 1.5A
 - MIC29300/29301/29302/29303: 3A
 - MIC29500/29501/29502/29503: 5A
 - MIC29750/29751/29752: 7.5A
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Extremely fast transient response
- Reverse-battery and load dump protection
- Zero-current shutdown mode (5-pin versions)
- Error flag signals output out-of-regulation (5-pin versions)
- Also characterized for smaller loads with industry-leading performance specifications
- Fixed voltage and adjustable versions



[HOME](#)

[<< BACK](#)



MICROCHIP

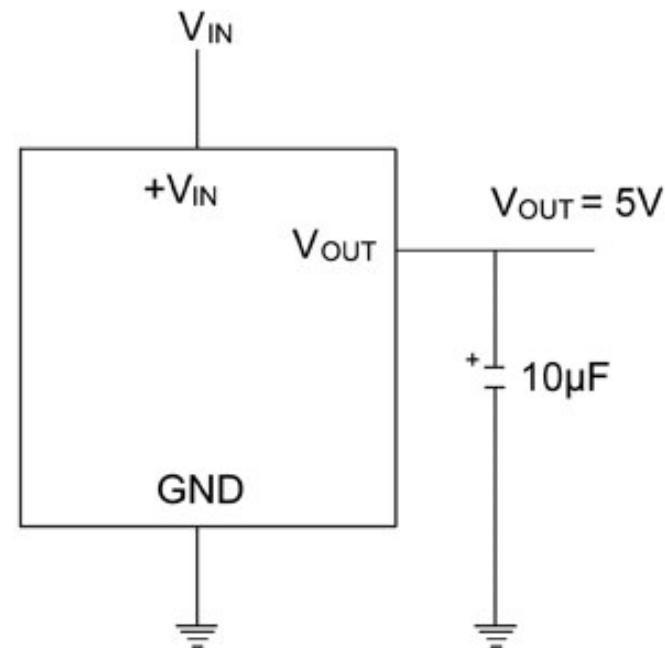
MIC2940A/41A

1.25A LDOs

Online
Datasheet

Features:

- High output voltage accuracy
- Guaranteed 1.25A output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- High output voltage accuracy
- Guaranteed 1.25A output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting



[HOME](#)

[<< BACK](#)



MICROCHIP

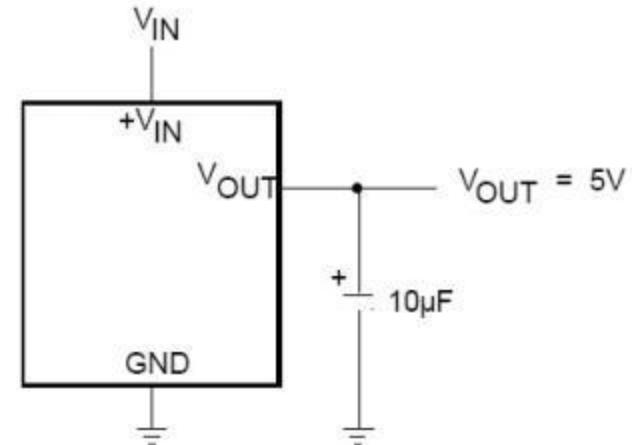
MIC2937A/1/2

750mA LDOs

Online
Datasheet

Features:

- High output voltage accuracy
- Guaranteed 750mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Input can withstand -20V reverse battery and +60V positive transients
- Error flag warns of output dropout
- Logic-controlled electronic shutdown
- Output programmable from 1.24V to 26V (MIC29372)
- Available in TO-220, TO-263, TO-220-5, and TO-263-5 packages



HOME

<< BACK



MICROCHIP

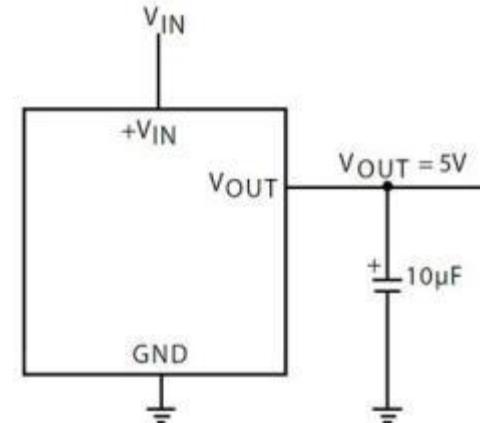
MIC2920A/1/2/4

400mA LDOs

Online
Datasheet

Features:

- High output voltage accuracy
- Guaranteed 400mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Input withstands -20V reverse battery and +60V positive transients
- Error flag warns of output dropout
- Logic-controlled electronic shutdown
- Output programmable from 1.24V to 26V (MIC29202/MIC29204)
- Available in TO-220, TO-220-5, and surface-mount TO-263-5, SOT-223, and SO-8 packages.



[HOME](#)

[<< BACK](#)



MICROCHIP

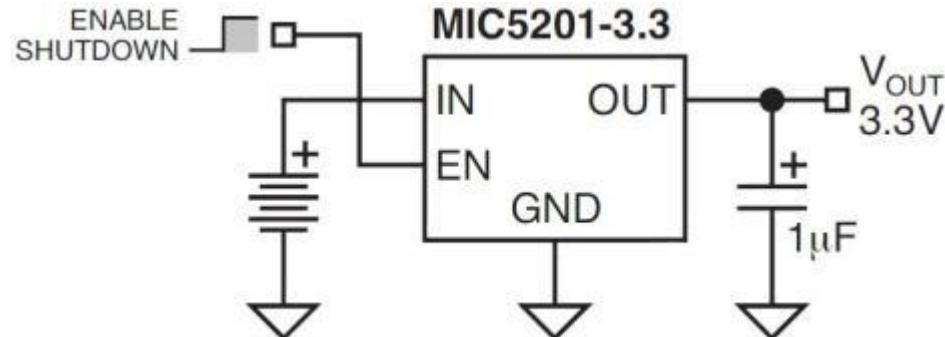
MIC5201

150mA LDO

Online
Datasheet

Features:

- Automotive Qualified
- High output voltage accuracy
- Variety of output voltages
- Guaranteed 150mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Reversed battery protection
- Load-dump protection (fixed voltage versions)
- Zero off-mode current state
- Logic-controlled electronic enable
- Available in SO-8 and SOT-223 packages



[HOME](#)

[<< BACK](#)



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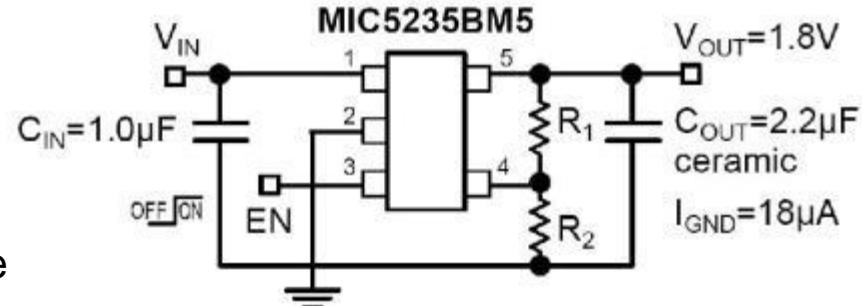
MIC5235

Ultra-Low Quiescent Current 150mA μ Cap LDO

Online
Datasheet

Features:

- Wide input voltage range: 2.3V to 24V
- Ultra-low ground current: 18 μ A
- Low dropout voltage: 310mV at 150mA
- High output accuracy: $\pm 2.0\%$ over temperature
- μ Cap: stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Zero off-mode current
- Reverse battery protection
- Reverse leakage protection
- Thermal shutdown and current limit protection
- IttyBitty® SOT-23-5 package



HOME

<< BACK



MICROCHIP

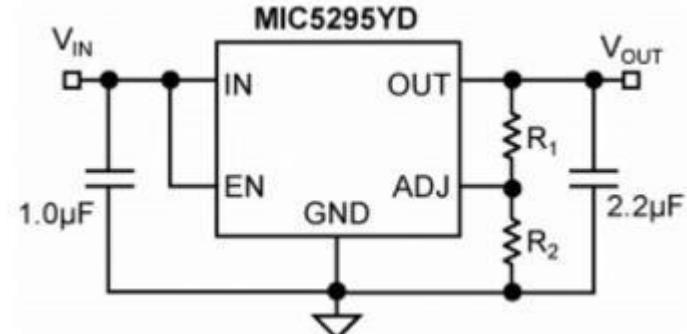
MIC5295

Low Quiescent Current 150mA LDO

Online
Datasheet

Features:

- Wide input voltage range: 2.3V to 24V
- Ultra-low ground current: 18 μ A
- Low dropout voltage: 300mV at 150mA
- High initial output accuracy: $\pm 1.0\%$
- Stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Reverse battery protection
- Reverse leakage protection
- Thermal shutdown and current limit protection
- Power TO-252-5 (D-Pak) package
- Adjustable output from 1.24V to 20V



HOME

<< BACK



MICROCHIP

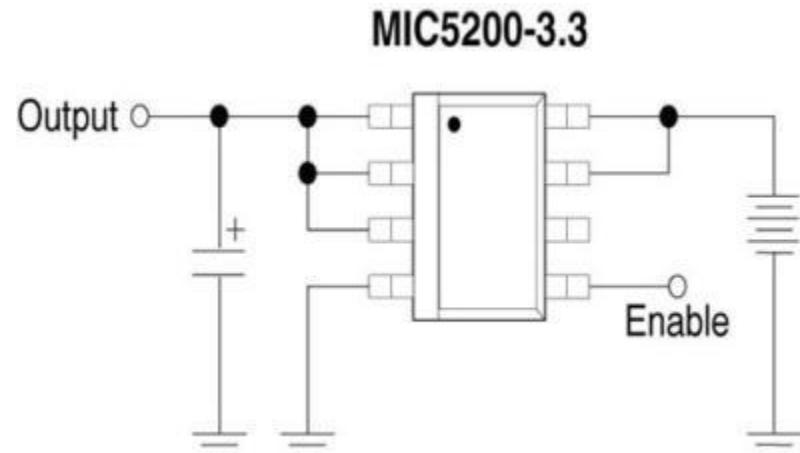
MIC5200

100mA LDO

Online
Datasheet

Features:

- High output voltage accuracy
- Variety of output voltages
- Guaranteed 100mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Zero off-mode current
- Logic-controlled electronic shutdown
- Available in 8-pin SOIC, MM8® 8-pin MSOP and SOT-223 packages



HOME

<< BACK



MICROCHIP

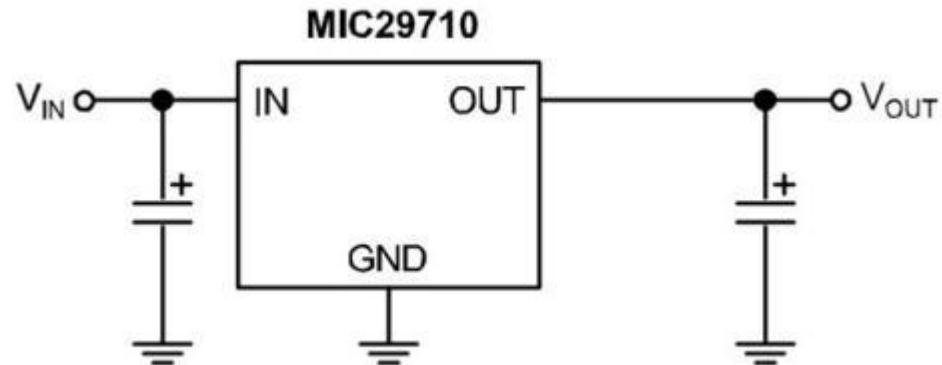
MIC29710/2

7.5A Fast-Response LDO Regulator

Online
Datasheet

Features:

- Fast transient response
- 7.5A current capability
- 700mV dropout voltage at full load
- Low ground current
- Accurate 2% guaranteed tolerance
- Zero-current shutdown mode (MIC29712)
- No minimum load current
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

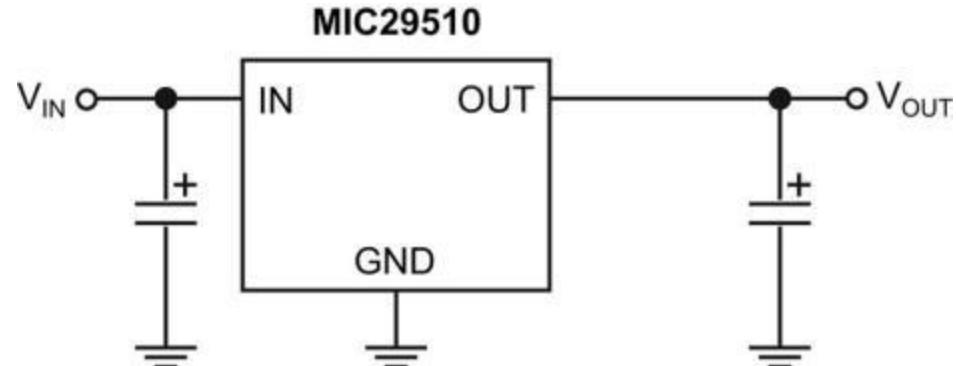
MIC29510/2

5A Fast-Response LDO Regulator

Online
Datasheet

Features:

- Fast transient response
- 5A current capability
- 700mV dropout voltage at full load
- Low ground current
- Accurate 1% guaranteed tolerance
- Zero current shutdown mode (MIC29512)
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

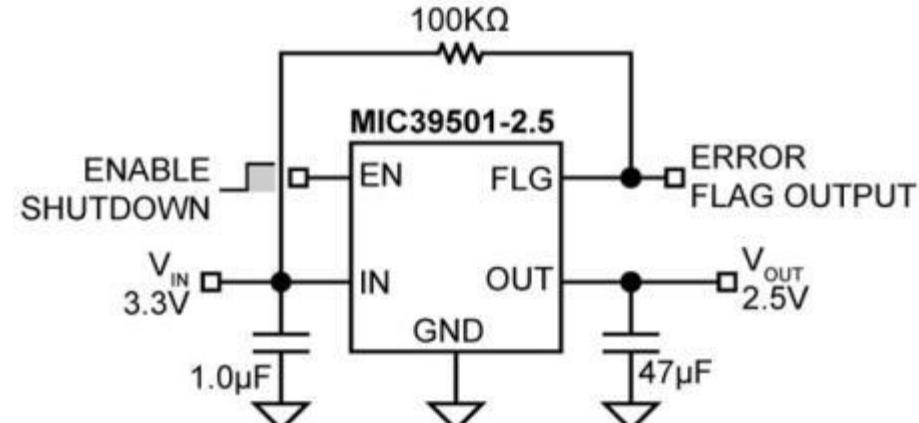
MIC39500/1

5A Low-Voltage Low-Dropout Regulator

Online
Datasheet

Features:

- 5A minimum guaranteed output current
- 400mV dropout voltage
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V conversion
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reverse battery and reverse lead insertion protection
- Reverse leakage protection
- Fast transient response
- TO-263 and TO-220 packages
- TTL/CMOS-compatible enable pin (MIC39501 only)
- Error flag output (MIC39501 only)
- Ceramic capacitor stable (See application information)



HOME

<< BACK



MICROCHIP

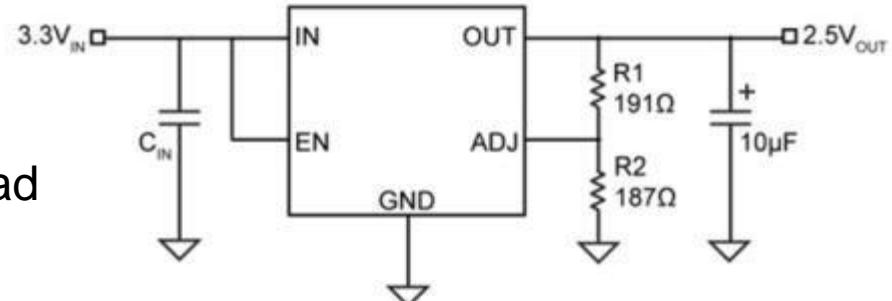
MIC29302A

3A Fast-Response LDO Regulator

Online
Datasheet

Features:

- High current capability
 - 3A over full temperature range
- Low dropout voltage of 450mV at full load
- Low ground current
- Accurate 1% guaranteed tolerance
- Extremely fast transient response
- Zero-current shutdown mode
- Error flag signals output out-of-regulation
- Adjustable output voltage
- Available in TO-263-L and TO-252-5L packages



$$V_{OUT} = 1.242 \times \left(\frac{R1}{R2} + 1 \right)$$

HOME

<< BACK



MICROCHIP

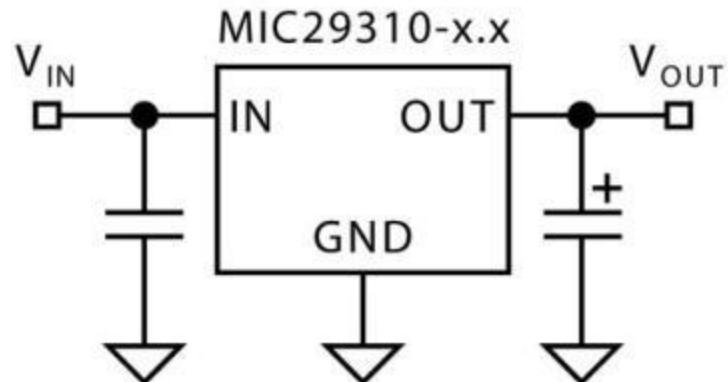
MIC29310/12

3A Fast-Response LDO Regulator

Online
Datasheet

Features:

- Low cost versions of MIC29300 family
- Fast transient response
- 3A current over full temperature range
- 600mV dropout voltage at full load
- Low ground current
- Accurate 1% guaranteed tolerance
- Zero current shutdown mode (MIC29312)
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

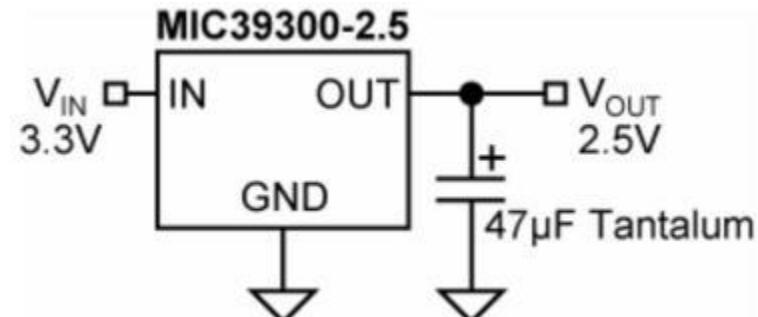
MIC39300/1/2

3A Low-Voltage Low-Dropout Regulator

Online
Datasheet

Features:

- 3.0A minimum guaranteed output current
- Ideal for 3.0V to 2.5V conversion
- Ideal for 2.5V to 1.8V conversion
- 1% initial accuracy
- Low ground current
- 550mV maximum dropout voltage over temperature
- Current limiting and thermal shutdown
- Reverse battery protection
- Reverse leakage protection
- Fast transient response
- TO-263 (D²Pak) and TO-220 packaging
- TTL/CMOS compatible enable pin (MIC39301/2 only)
- Error flag output (MIC39301 only)
- Adjustable output (MIC39302 only)



HOME

<< BACK



MICROCHIP

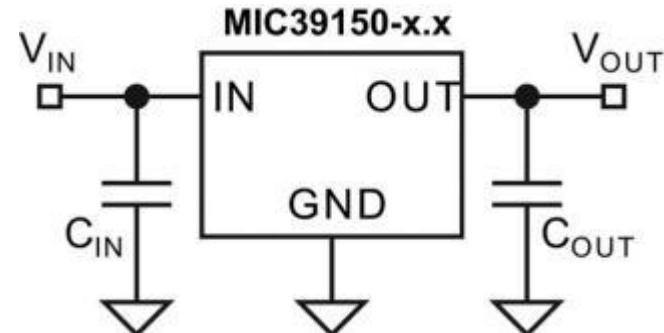
MIC39150/1/2

1.5A Low-Voltage Low-Dropout Regulator

Online
Datasheet

Features:

- 1.5A minimum guaranteed output current
- 500mV maximum dropout voltage over temperature
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5 to 1.8V or 1.65V conversion
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reverse battery and reverse lead insertion protection
- Reverse leakage protection
- TTL/CMOS-compatible enable pin (MIC39151/2 only)
- Error flag output (MIC39151 only)
- Adjustable output (MIC39152 only)
- Power D-Pak package (TO-252) Adjustable only
- Power D²Pak Package (TO-263)



HOME

<< BACK



MICROCHIP

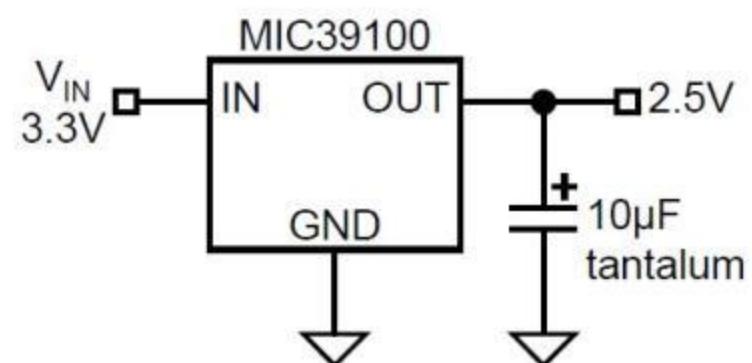
MIC39100/1/2

1A Low-Voltage Low-Dropout Regulator

Online
Datasheet

Features:

- Fixed and adjustable output voltages to 1.24V
- 410mV typical dropout at 1A
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V conversion
- 1A minimum guaranteed output current
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reversed-battery protection
- Reversed-leakage protection
- Fast transient response
- Low-profile SOT-223 package
- Power SO-8 package



HOME

<< BACK



MICROCHIP

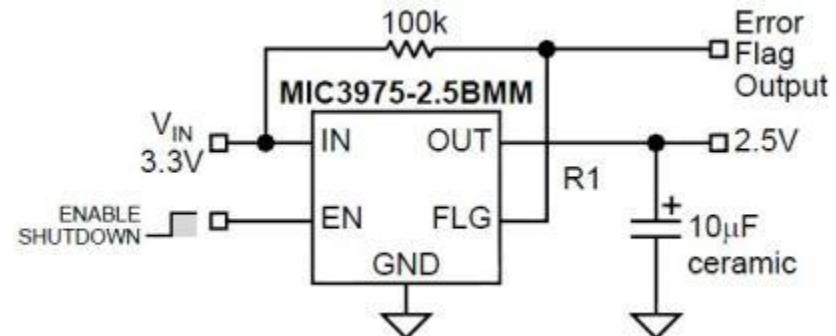
MIC3975

1A Low-Voltage Low-Dropout Regulator

Online
Datasheet

Features:

- Fixed and adjustable output voltages to 1.24V
- 280mV typical dropout at 750mA
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V or 1.65V conversion
- Stable with ceramic capacitor
- 750mA minimum guaranteed output current
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reverse battery protection
- Reverse leakage protection
- Fast transient response
- Low-profile MSOP-8



HOME

<< BACK



MICROCHIP

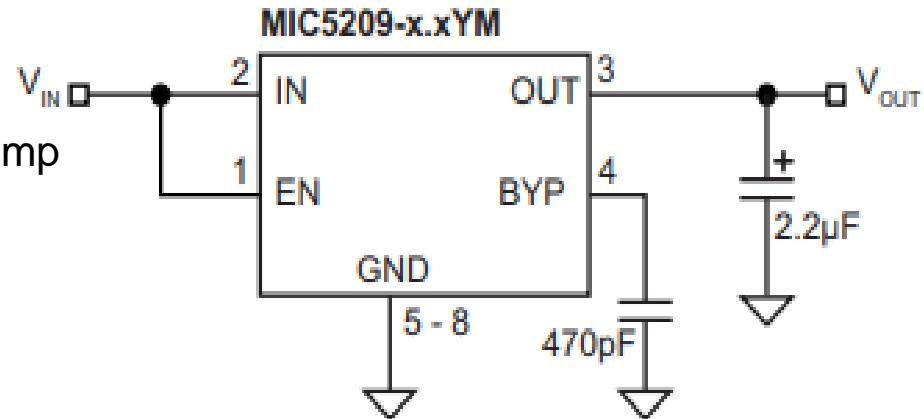
MIC5209

1A Low-Voltage LDO

Online
Datasheet

Features:

- Output voltage range: 1.8V – 15V
- Guaranteed 500mA output over full operating temp
- Low 500mV max dropout voltage at full load
- Extremely tight load and line regulation
- 1% initial accuracy
- No-load stability
- Current limiting and thermal shutdown
- Reverse battery protection
- Ultra low noise capability in SOIC-8, DDPAK, SOT-223 and DFN packages



HOME

<< BACK



MICROCHIP

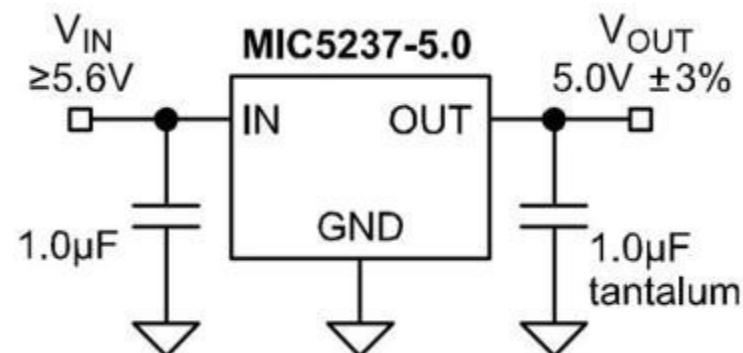
MIC5237

500mA LDO

Online
Datasheet

Features:

- Low 300mV typical dropout voltage at full load
- Extremely tight load and line regulation
- Current and thermal limiting
- Reversed battery protection
- TO-220 and TO-263 packages
- Low temperature coefficient
- Guaranteed 500mA output over the full operating temperature range
- No-load stability
- Low noise output



HOME

<< BACK



MICROCHIP

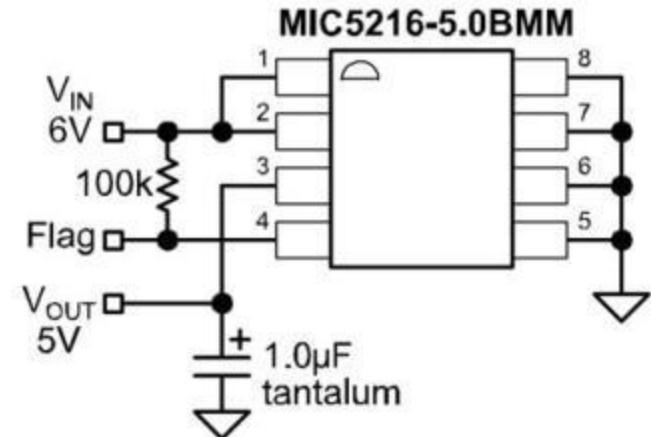
MIC5216

500mA-Peak Output LDO

Online
Datasheet

Features:

- Error flag indicates undervoltage fault
- Low 500mV maximum dropout voltage at full load
- Extremely tight load and line regulation
- Tiny SOT-23-5 and MM8® power MSOP-8 package
- Low noise output
- Low temperature coefficient
- Current and thermal limiting
- Reversed battery protection
- Guaranteed 500mA peak output over the full operating temperature range
- CMOS/TTL-compatible enable/shutdown control
- Near-zero shutdown current



HOME

<< BACK



MICROCHIP

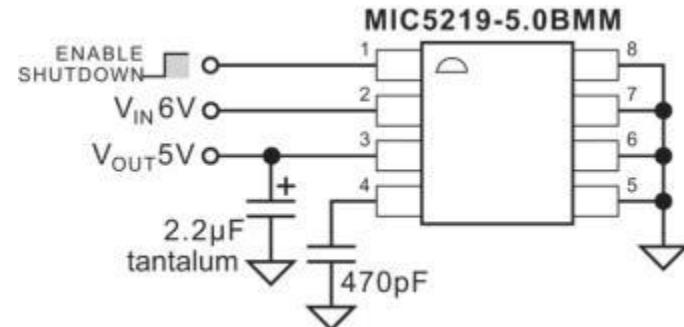
MIC5219

500mA-Peak Output LDO

Online
Datasheet

Features:

- Low 500mV maximum dropout voltage at full load
- Extremely tight load and line regulation
- Ultra-low noise output
- Low temperature coefficient
- Current and thermal limiting
- Tiny SOT-23-5 and MM8® power MSOP-8 package
- 500mA output current capability
 - SOT-23-5 package - 500mA peak
 - 2mm x 2mm MLF® and Thin MLF® packages - 500mA continuous
 - MSOP-8 package - 500mA continuous
- Reversed battery protection
- CMOS/TTL-compatible enable/shutdown control
- Near-zero shutdown current



HOME

<< BACK



MICROCHIP

MIC5207

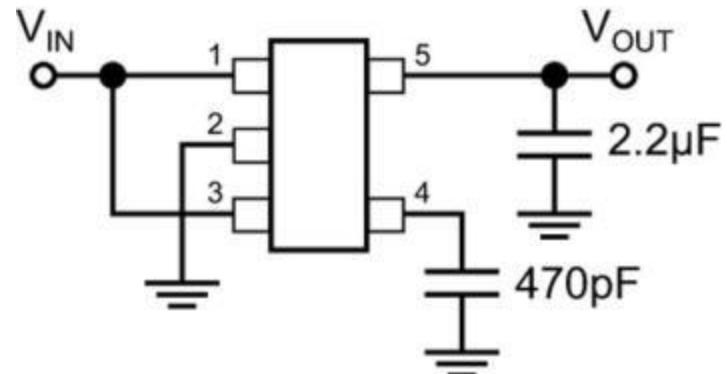
180mA Low-Noise LDO

Online
Datasheet

Features:

- Ultra-low noise output
- High output voltage accuracy
- Guaranteed 180mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Reverse battery protection
- Zero off-mode current state
- Logic-controlled electronic enable

MIC5207-x.xBM5



HOME

<< BACK



MICROCHIP

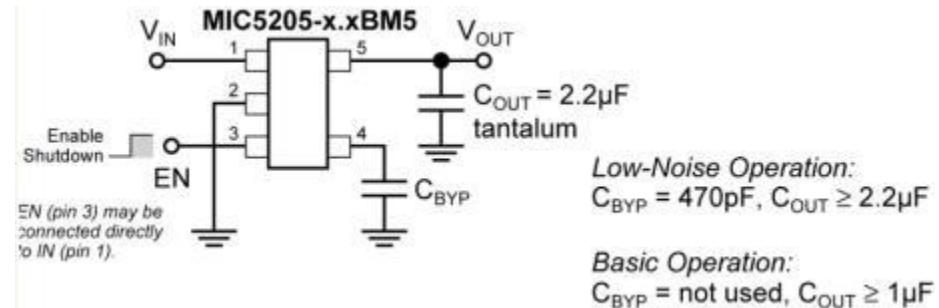
MIC5205

150mA Low-Noise LDO

Online
Datasheet

Features:

- Ultra-low noise output
- High output voltage accuracy
- Guaranteed 150mA output
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Reverse battery protection
- Zero off-mode current
- Logic-controlled electronic enable



HOME

<< BACK



MICROCHIP

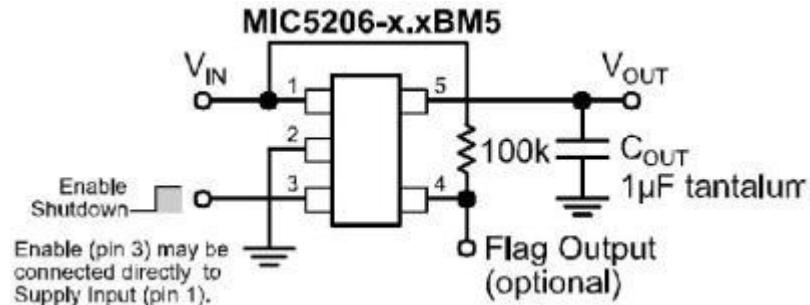
MIC5206

150mA Low-Noise LDO

Online
Datasheet

Features:

- Error flag indicates undervoltage fault
- High output voltage accuracy
- Guaranteed 150mA output
- Ultra-low noise output (8-pin versions)
- Low quiescent current
- Low dropout voltage
- Extremely tight load and line regulation
- Very low temperature coefficient
- Current and thermal limiting
- Reversed battery protection
- Zero off-mode current
- Logic-controlled electronic enable



[HOME](#)

[<< BACK](#)



MICROCHIP

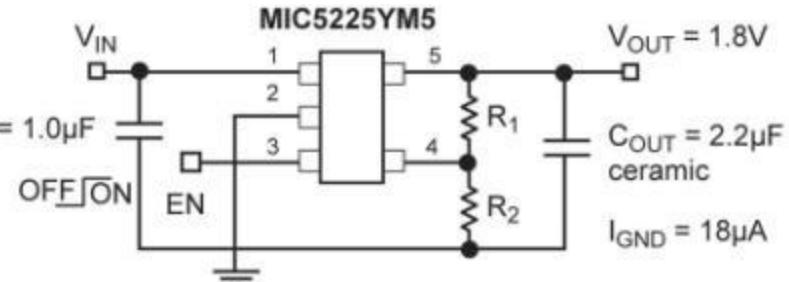
MIC5225

Low Quiescent Current 150mA μ Cap LDO

Online
Datasheet

Features:

- Wide input voltage range: 2.3V to 16V
- High output accuracy of $\pm 2.0\%$ over temperature
- Guaranteed 150mA output
- Very low ground current: 29 μ A
- Low dropout voltage of 310mV at 150mA
- μ Cap: stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Reverse battery protection
- Reverse leakage protection
- Zero off-mode current
- Thermal shutdown and current limit protection
- IttyBitty® SOT-23-5 package



[HOME](#)

[<< BACK](#)



MICROCHIP

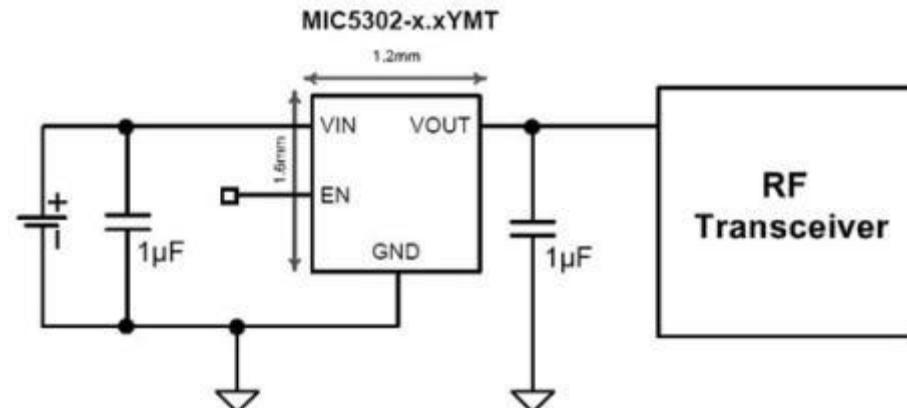
MIC5203

µCap 80mA LDO

Online
Datasheet

Features:

- Tiny 4-lead and 5-lead surface-mount packages
- Wide selection of output voltages
- Guaranteed 80mA output
- Low quiescent current
- Low dropout voltage
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled shutdown
- Stability with low-ESR ceramic capacitors



HOME

<< BACK



MICROCHIP

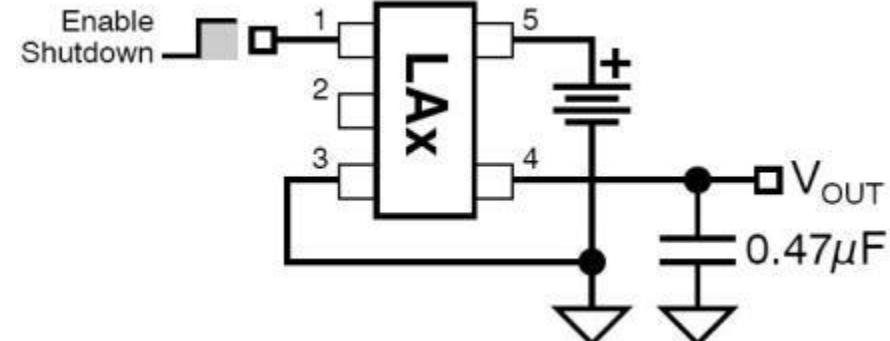
MIC5213

Teeny™ SC-70 μ Cap LDO

Online
Datasheet

Features:

- Teeny™ SC-70 package
- Wide selection of output voltages
- Guaranteed 80mA output
- Low quiescent current
- Low dropout voltage
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled shutdown
- Stability with low-ESR ceramic capacitors



HOME

<< BACK



MICROCHIP

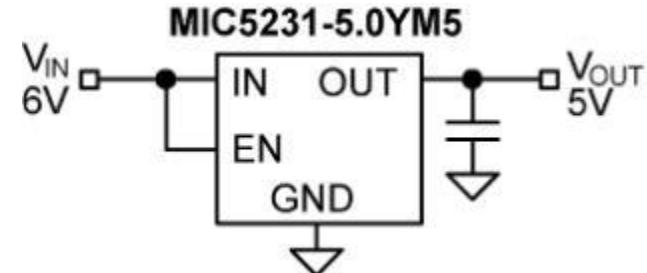
MIC5231

10mA μ Cap™ LDO

Online
Datasheet

Features:

- Extremely low quiescent current: only 0.65 μ A
- **No output capacitor requirement**
- Stable with ceramic or tantalum capacitors
- IttyBitty® SOT-23-5 surface-mount package
- 10mA output drive
- Low 150mV at 10mA dropout voltage
- Tight load and line regulation
- Low temperature coefficient
- Logic-level enable input



HOME

<< BACK



MICROCHIP

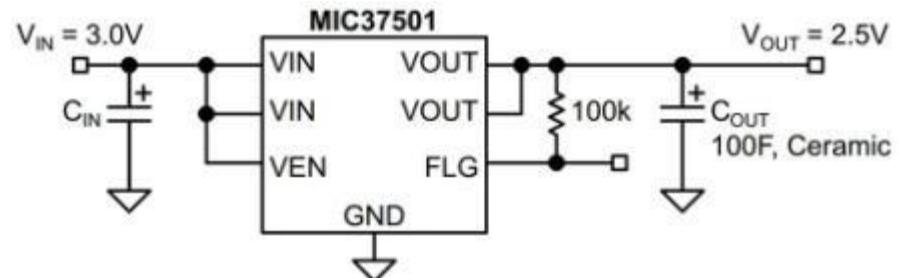
MIC37501/2

5A Low Voltage μ Cap LDO Regulator

Online
Datasheet

Features:

- 5A minimum guaranteed output current
- 500mV maximum dropout voltage
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- Stable with ceramic or tantalum capacitor
 - V_{IN} : 2.3V to 6.0V
- $\pm 1.0\%$ initial output tolerance
- Fixed and adjustable output voltages:
 - MIC37501 -7 terminal fixed voltage
 - MIC37502 -5 (TO-263) and 7 (SPAk) terminal adjustable voltage
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Thermal shutdown and current-limit protection
- Reverse leakage protection
- Low-profile S-Pak and TO-263 packages



HOME

<< BACK



MICROCHIP

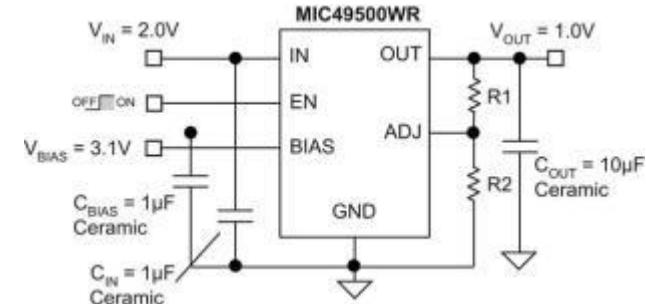
MIC49500

5A Dual Supply Low Voltage High Bandwidth LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
 - V_{IN} : 1.4V to 6V
 - V_{BIAS} : 3V to 6V
- Stable with 10 μ F ceramic output capacitor
- $\pm 1.0\%$ initial output tolerance
- Maximum dropout ($V_{IN} - V_{OUT}$) is 500mV over temperature
- Adjustable output voltage down to 0.7V
- Ultra-fast transient response (Up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- Thin 7-pin S-Pak package
- TO-263 7-pin package
- -40°C to $+125^{\circ}\text{C}$ operating junction temperature range



[HOME](#)

[<< BACK](#)



MICROCHIP

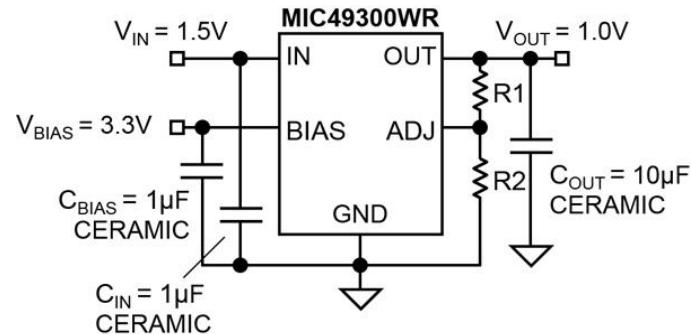
MIC49300

3.0A Low Voltage LDO w/Dual Input Voltages

Online
Datasheet

Features:

- Input voltage range:
 - V_{IN} : 1.4V to 6.5V
 - V_{BIAS} : 3.0V to 6.5V
- Stable with 1 μ F ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Adjustable output voltage down to 0.9V
- Ultra-fast transient response (Up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- Power S-Pak package
- Junction temperature range: -40°C to +125°C



HOME

<< BACK



MICROCHIP

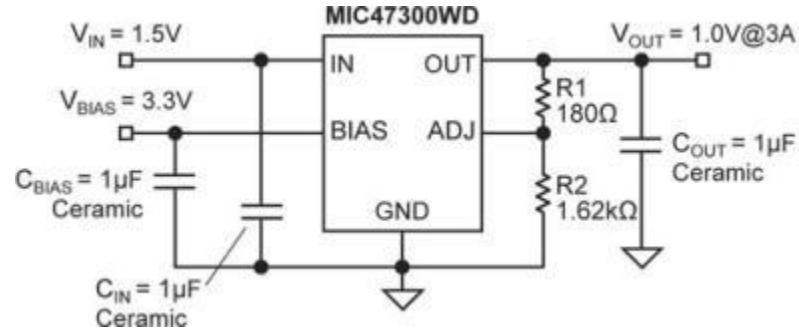
MIC47300

3A Low Voltage Adj. LDO with Dual Input Supply

Online
Datasheet

Features:

- Input voltage range:
 - V_{IN} : 1.4V to 6.5V
 - V_{BIAS} : 3.0V to 6.5V
- Stable with 1 μ F ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage ($V_{IN} - V_{OUT}$) of 400mV over temperature
- Adjustable output voltage down to 0.9V
- Ultra fast transient response (Up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Power D-Pak package (TO-252)
- Thermal shutdown and current limit protection
- Junction temperature range: -40°C to +125°C



HOME

<< BACK



MICROCHIP

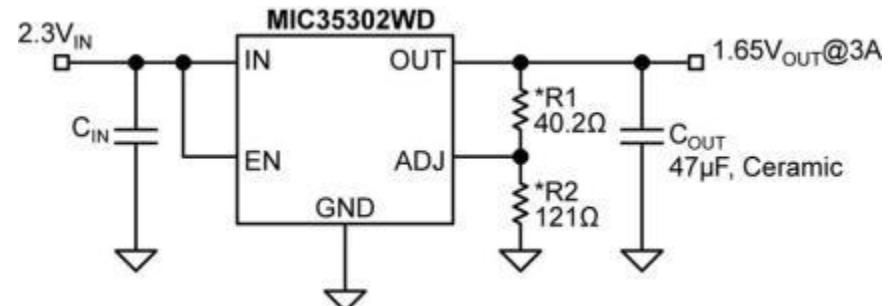
MIC35302

3A Low-Voltage μ Cap LDO

Online
Datasheet

Features:

- Ideal for 3.0V to 2.5V conversion
- Stable with ceramic or tantalum capacitor
- Wide input voltage range:
 - V_{IN} : 2.25V to 6.0V
- Excellent line and load regulation specifications
- 3.0A minimum guaranteed output current
- Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- 600mV maximum dropout voltage over temperature
- Logic-controlled shutdown
- Thermal shutdown and current limit protection
- Reverse leakage protection
- -40 $^{\circ}$ C to +125 $^{\circ}$ C junction temperature
- Power D-Pak package (TO-252)



[HOME](#)

[<< BACK](#)



MICROCHIP

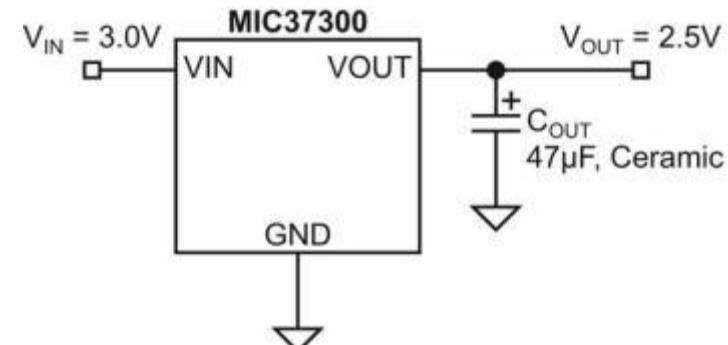
MIC37300/1/2/3

3.0A Low-Voltage μ Cap LDO

Online
Datasheet

Features:

- 3.0A minimum guaranteed output current
- 500mV maximum dropout voltage overtemperature
- Ideal for 3.0V to 2.5V conversion
- Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- Stable with ceramic or tantalum capacitor
- Wide input voltage range:
 - V_{IN} : 2.25V to 6.0V
 - $\pm 1.0\%$ initial output tolerance
- Fixed and adjustable output voltages:
 - MIC37300 3-pin fixed voltages
 - MIC37301 5-pin S-Pak or 8-pin ePad SOIC fixed voltages with flag
 - MIC37302 5-pin adjustable voltage
 - MIC37303 8-pin ePad SOIC adjustable voltage with flag
- Thermal shutdown and current limit protection
- Reverse leakage protection



HOME

<< BACK



MICROCHIP

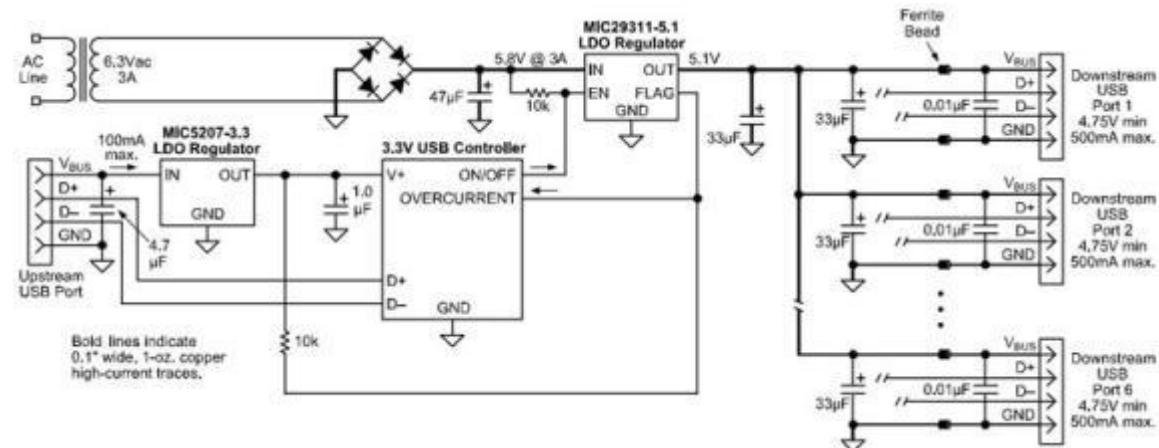
MIC29311

3A Fast-Response LDO for USB

Online
Datasheet

Features:

- Fast transient response
- 3A output current over full temperature range
- 600mV dropout voltage at full load
- Low ground current
- 3% total accuracy
- Zero off-mode current state
- Thermal shutdown
- Current limiting
- Reversed battery protection
- Fixed 5.1V output



HOME

<< BACK



MICROCHIP

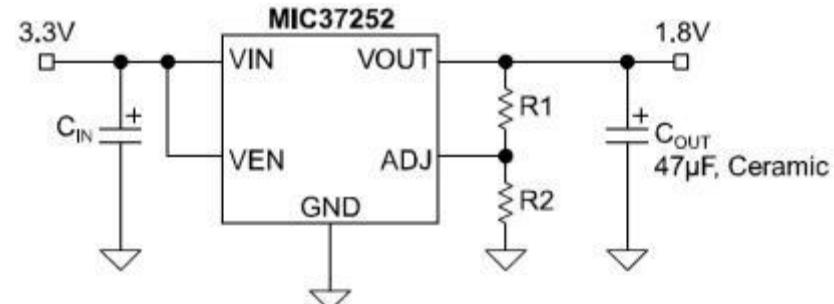
MIC37252

2.5A Low Voltage μ Cap LDO

Online
Datasheet

Features:

- 2.5A minimum guaranteed output current
- Ideal for 3.3V to 1.8V conversion
- Stable with ceramic or tantalum capacitor
- $\pm 2.0\%$ initial output tolerance
- Dropout voltage is 550mV at 2.5A
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- Reverse leakage protection
- S-Pak and TO-263 packages



HOME

<< BACK



MICROCHIP

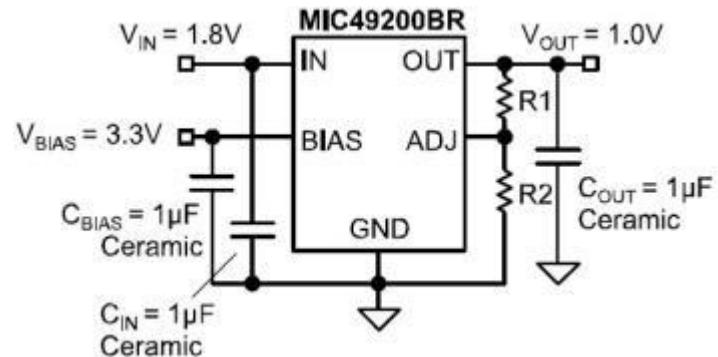
MIC49200

2A Low Voltage LDO with Dual Input Voltages

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
 - V_{IN} : 1.4V to 6.5V
 - V_{BIAS} : 3.0V to 6.5V
- Stable with 1 μ F ceramic output capacitor
- $\pm 1.0\%$ initial output tolerance
- Maximum dropout ($V_{IN} - V_{OUT}$) is 500mV over temperature
- Adjustable output voltage down to 0.9V
- Ultra-fast transient response (up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Logic-controlled shutdown option
- Thermal shutdown and current limit protection
- Thin 5-pin S-Pak package
- -40°C to +125°C operating junction temperature range



[HOME](#)

[<< BACK](#)



MICROCHIP

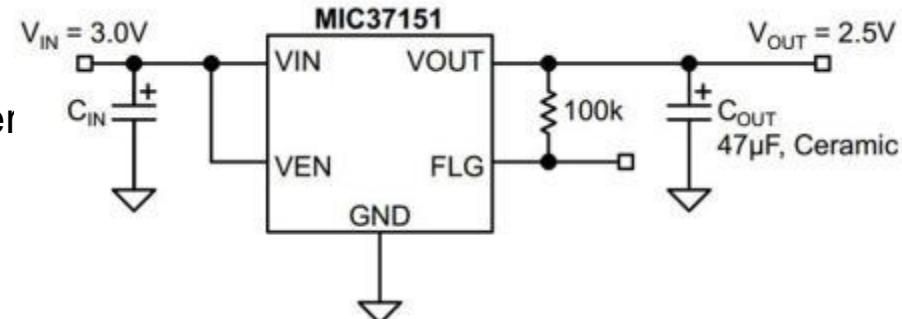
MIC37150/1/2/3

1.5A Low Voltage μ Cap LDO

Online
Datasheet

Features:

- 1.5A minimum guaranteed output current
- 500mV maximum dropout voltage over temperature
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- Stable with ceramic or tantalum capacitor
- Wide input voltage range
 - V_{IN} : 2.25V to 6.0V
- $\pm 1.0\%$ initial output tolerance
- Fixed and adjustable output voltages
 - MIC37150 - 3-pin fixed voltages
 - MIC37151 - 5-pin S-Pak or 8-pin ePad SOIC
- Fixed voltages with flag
 - MIC37152 - 5-pin adjustable voltage
 - MIC37153 - 8-pin adjustable voltage with flag
- Thermal shutdown and current limit protection
- Low profile 3 or 5-pin S-Pak packages or 8-pin ePad SOIC



[HOME](#)

[<< BACK](#)



MICROCHIP

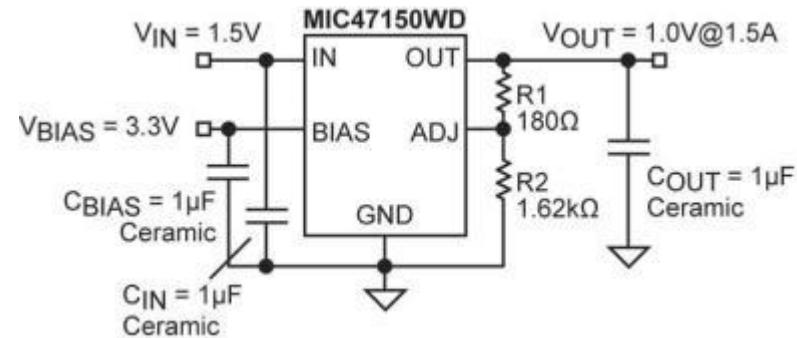
MIC47150

1.5A Low Voltage Adj. High-Bandwidth LDO with Dual Input Supplies

Online
Datasheet

Features:

- Input voltage range:
 - V_{IN} : 1.4V to 6.5V
 - V_{BIAS} : 3.0V to 6.5V
- Stable with 1 μ F ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Adjustable output voltage down to 0.9V
- Ultra fast transient response (up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Power D-Pak package (TO-252)
- Thermal shutdown and current limit protection
- Junction temperature range: -40°C to +125°C



[HOME](#)

[<< BACK](#)



MICROCHIP

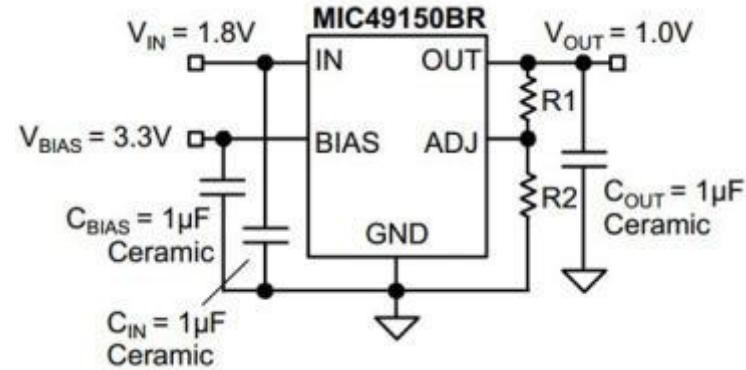
MIC49150

1.5A Low Voltage LDO with Dual Input Voltages

Online
Datasheet

Features:

- Input voltage range:
- V_{IN} : 1.4V to 6.5V
- V_{BIAS} : 3.0V to 6.5V
- Stable with 1 μ F ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Adjustable output voltage down to 0.9V
- Ultra fast transient response (up to 10MHz bandwidth)
- Excellent line and load regulation specifications
- Logic-controlled shutdown option
- Thermal shutdown and current limit protection
- Power MSOP-8 and S-Pak packages
- Junction temperature range: -40°C to +125°C



HOME

<< BACK



MICROCHIP

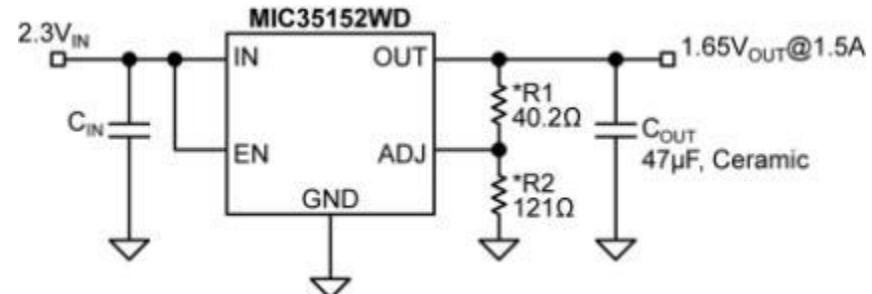
MIC35152

1.5A Low Voltage μ Cap LDO

Online
Datasheet

Features:

- 1.5A minimum guaranteed output current
- Stable with ceramic or tantalum capacitor
- Wide input voltage range
 - V_{IN} : 2.25V to 6.0V
- $\pm 1.0\%$ initial output tolerance
- 600mV maximum dropout voltage over temperature
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- Reverse-leakage protection
- -40°C to +125°C junction temperature
- Power D-Pak package (TO-252)



[HOME](#)

[<< BACK](#)



MICROCHIP

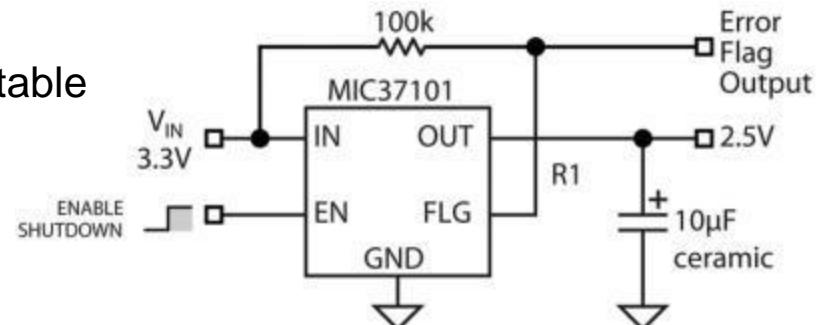
MIC37100/1/2

1A Low-Voltage μ Cap LDO

Online
Datasheet

Features:

- Fixed and adjustable output voltages to 1.24V
- μ Cap Regulator, 10 μ F ceramic output capacitor stable
- 280mV typical dropout at 1A
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V, 1.65V, or 1.5V conversion
- 1A minimum guaranteed output current
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reverse leakage protection
- Fast transient response
- Low-profile SOT-223 package
- Power SO-8 package
- S-PAK package (MIC37102 only)



HOME

<< BACK



MICROCHIP

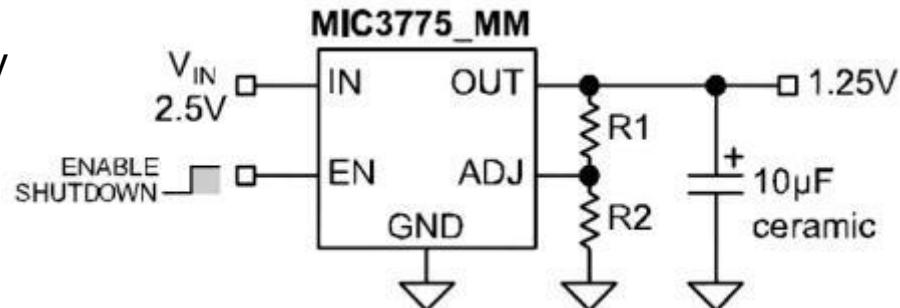
MIC3775

750mA μ Cap Low-Voltage LDO

Online
Datasheet

Features:

- Fixed and adjustable output voltages to 1.24V
- 280mV typical dropout at 750mA
 - Ideal for 3.0V to 2.5V conversion
 - Ideal for 2.5V to 1.8V or 1.65V conversion
- Stable with ceramic capacitor
- 750mA minimum guaranteed output current
- 1% initial accuracy
- Low ground current
- Current limiting and thermal shutdown
- Reverse leakage protection
- Fast transient response
- Low-profile power MSOP-8 package



HOME

<< BACK



MICROCHIP

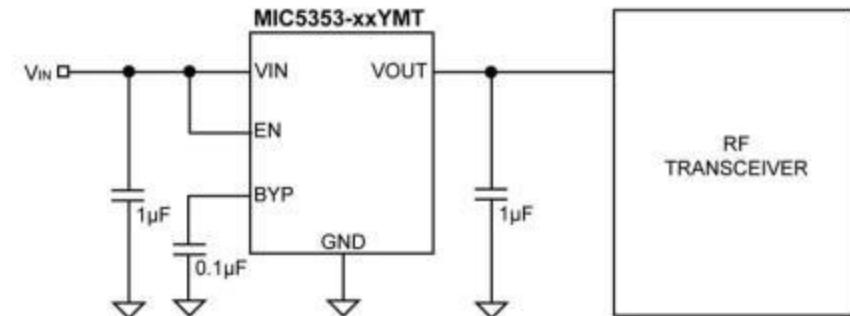
MIC5353

500mA LDO in 1.6mm x 1.6mm Package

Online
Datasheet

Features:

- 500mA guaranteed output current
- Input voltage range: 2.6V to 6V
- Ultra-low dropout voltage: 160mV at 500mA
- $\pm 2\%$ initial accuracy
- Ultra-low output noise: 30 μ Vrms
- Low quiescent current: 90 μ A
- Stable with ceramic output capacitors
- 35 μ s turn-on time
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® lead-less package



[HOME](#)

[<< BACK](#)



MICROCHIP

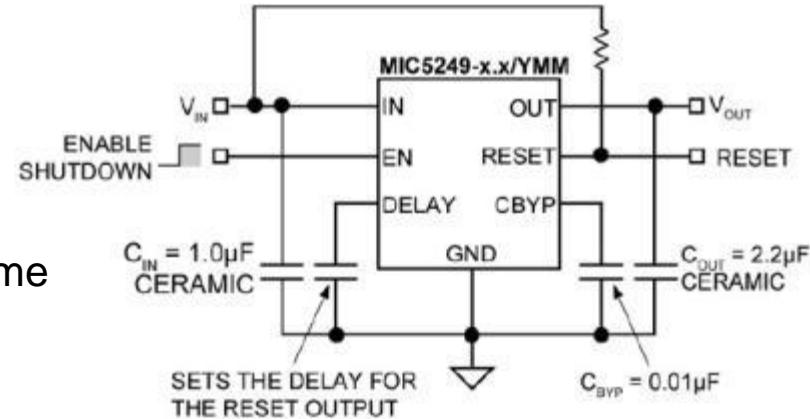
MIC5249

300mA μ Cap LDO with Programmable Power-On Reset Delay

Online
Datasheet

Features:

- 300mA output current
- High PSRR: 65dB at 120Hz
- Stable with ceramic output capacitor
- Power-on reset output with adjustable delay time
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 3.0\%$ over temperature
- Low dropout voltage: 400mV at 300mA
- Low quiescent current: 85mA
- Zero off-mode current state
- Thermal shutdown protection
- Current limit protection
- Tiny MSOP-8 package



HOME

<< BACK



MICROCHIP

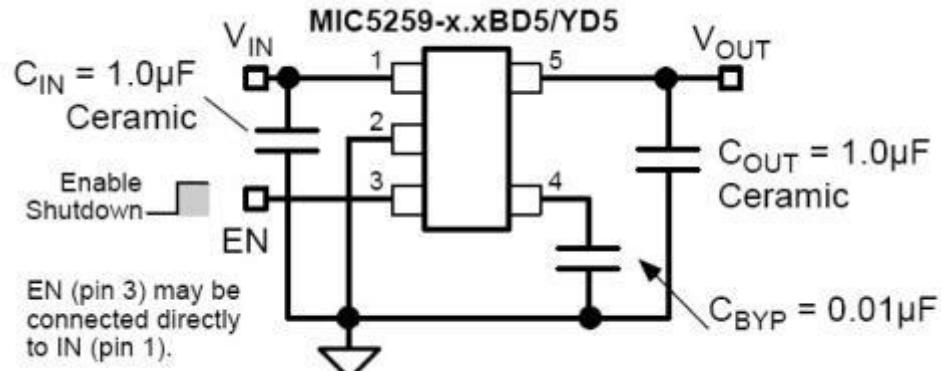
MIC5259

300mA High PSRR Low Noise μ Cap CMOS LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
- PSRR: 70dB at 1kHz
- Low output noise: 30 μ Vrms
- Stability with ceramic output capacitors
- Low dropout: 300mV at 300mA
- High output accuracy:
 - 1.5% initial accuracy
 - 3.0% over temperature
- Low quiescent current: 105 μ A
- Tight load and line regulation
- TTL logic-controlled enable input
- Zero off-mode current state
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

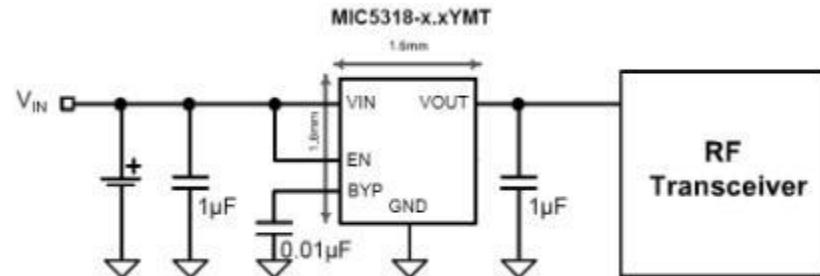
MIC5318

High Performance 300mA μ Cap ULDO

Online
Datasheet

Features:

- Ultra-low dropout voltage: 110mV at 300mA
- Input voltage range: 2.3V to 6.0V
- 300mA guaranteed output current
- Stable with ceramic output capacitors
- Ultra-low output noise: 30 μ Vrms
- Low quiescent current: 85 μ A total
- High PSRR: >70dB at 1kHz
- Less than 35 μ s turn-on time
- High output accuracy:
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package
- Thin SOT23-5 package



[HOME](#)

[<< BACK](#)



MICROCHIP

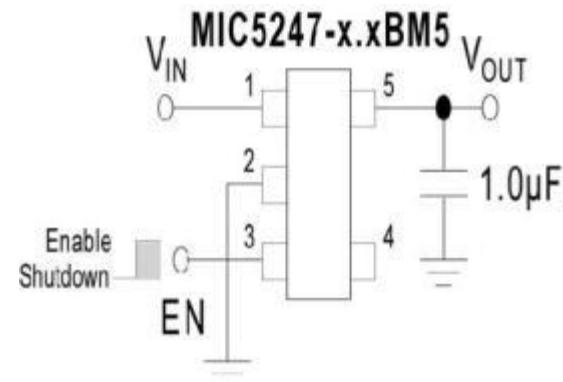
MIC5247

150mA Low-Voltage μ Cap LDO

Online
Datasheet

Features:

- Ultra-low noise
- Low voltage outputs
- Load-independent, ultra-low ground current: 85mA
- 150mA output current
- Current limiting
- Thermal shutdown
- Tight load and line regulation
- Zero off-mode current
- Stability with low-ESR capacitors
- Fast transient response
- Logic-controlled enable input



HOME

<< BACK



MICROCHIP

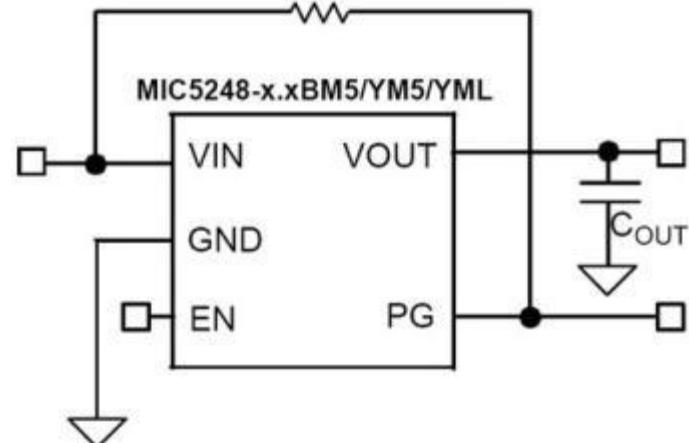
MIC5248

150mA μ Cap CMOS LDO with Power Good

Online
Datasheet

Features:

- Power Good indicator
- Load-independent, ultra-low ground current: 100 μ A
- 150mA output current
- Current limiting
- Thermal shutdown
- Tight load and line regulation
- Zero off-mode current
- Stability with low-ESR capacitors
- Fast transient response
- TTL logic-controlled enable input



[HOME](#)

[<< BACK](#)



MICROCHIP

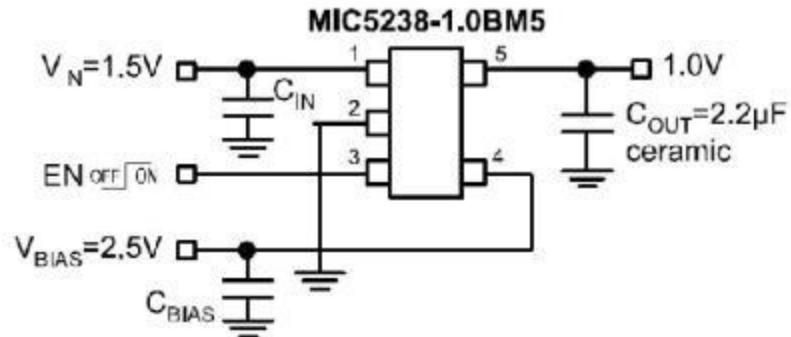
MIC5238

Ultra-Low Quiescent Current 150mA μ Cap LDO

Online
Datasheet

Features:

- Ultra-low input voltage range: 1.5V to 6V
- Low dropout voltage: 310mV at 150mA
- High output accuracy: $\pm 2.0\%$ over temperature
- μ Cap: stable with ceramic or tantalum capacitors
- Excellent line and load regulation specifications
- Zero off-mode current
- Ultra-low output voltage: 1.1V minimum output voltage
- Reverse leakage protection
- Thermal shutdown and current limit protection
- IttyBitty® SOT-23-5 package



[HOME](#)

[<< BACK](#)



MICROCHIP

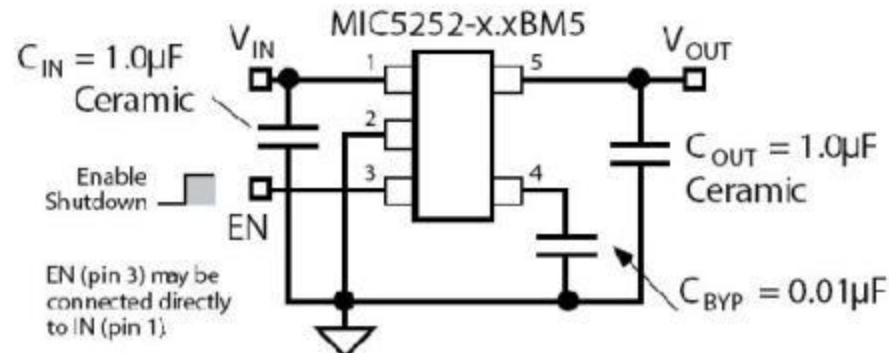
MIC5252

150mA High PSRR Low Noise μ Cap CMOS LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
- PSRR equals 50dB at $V_O + 0.3V$
- Ultra-low output noise: $30\mu V_{rms}$
- Stability with ceramic output capacitors
- Ultra-low dropout: 135mV at 150mA
- High output accuracy:
 - 1.0% initial accuracy
 - 2.0% over temperature
- Low quiescent current: $90\mu A$
- Tight load and line regulation
- TTL logic-controlled enable input
- Zero off-mode current
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

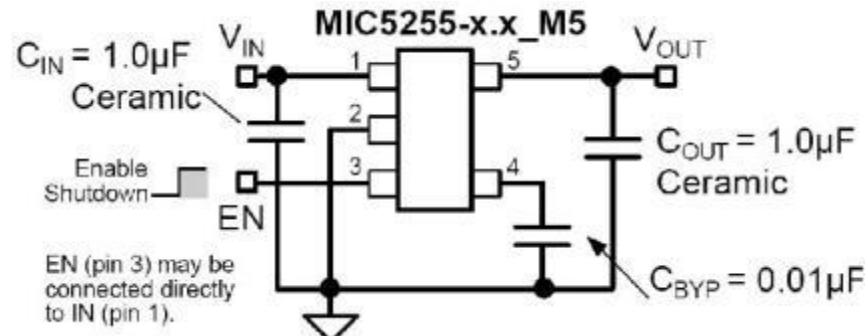
MIC5255

150mA Low Noise μ Cap CMOS LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
- Thin SOT package: 1mm height SOT-23-5
- Ultra-low output noise: 30 μ V(rms)
- Stability with ceramic output capacitors
- Ultra-low dropout: 135mV at 150mA
- High output accuracy:
 - 1.0% initial accuracy
 - 2.0% over temperature
- Low quiescent current: 90 μ A
- Tight load and line regulation
- TTL logic-controlled enable input
- Zero off-mode current
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

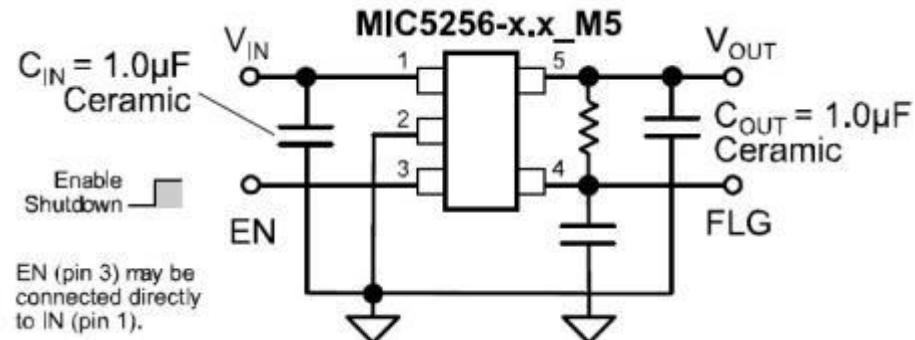
MIC5256

150mA μ Cap LDO with Error Flag

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
- Thin SOT package: 1mm height
- Error flag indicates fault condition
- Stable with ceramic output capacitor
- Ultra-low dropout: 135mV at 150mA
- High output accuracy:
 - 1.0% initial accuracy
 - 2.0% over temperature
- Low quiescent current: 90 μ A
- Tight load and line regulation
- Thermal shutdown and current limit protection
- Zero off-mode current
- TTL logic-controlled enable input



[HOME](#)

[<< BACK](#)



MICROCHIP

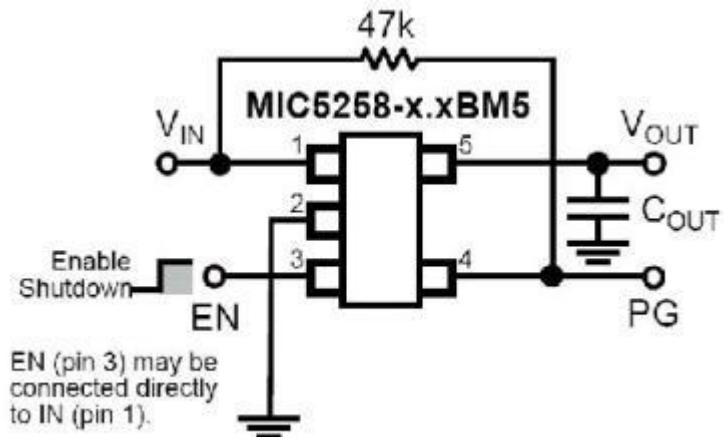
MIC5258

150mA μ Cap CMOS LDO with Power Good

Online
Datasheet

Features:

- Power Good indicator
- Load-independent, ultra-low ground current: 100mA
- 150mA output current
- Current limiting
- Thermal shutdown
- Tight load and line regulation
- Zero off-mode current
- Stability with low-ESR capacitors
- Fast transient response
- TTL logic-controlled enable input



HOME

<< BACK



MICROCHIP

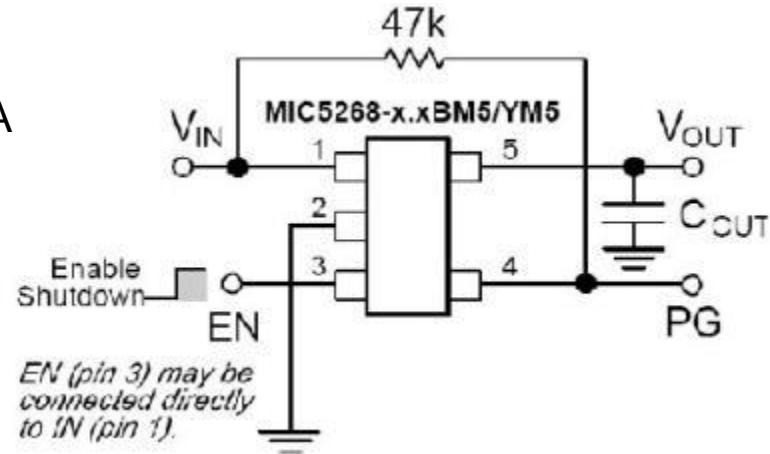
MIC5268

150mA μ Cap CMOS LDO with Power Good

Online
Datasheet

Features:

- Power Good indicator
- Load-independent, ultra-low ground current: 100mA
- 150mA output current
- Current limiting
- Thermal shutdown
- Tight load and line regulation
- Zero off-mode current
- Stability with low-ESR capacitors
- Fast transient response
- TTL logic-controlled enable input



HOME

<< BACK



MICROCHIP

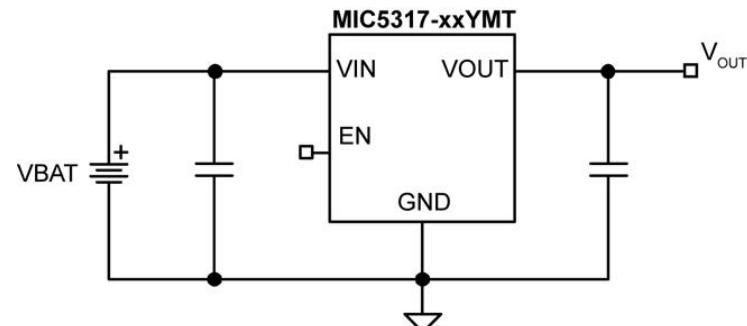
MIC5317

High-Performance Single 150mA LDO

Online
Datasheet

Features:

- Tiny 1mm × 1mm Thin DFN, SOT23-5 and TSOT23-5 packages
- Wide 2.5V to 6V operating range
- 150mA guaranteed output current
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 155mV @ 150mA
- Excellent load/line transient response
- Low quiescent current: 29 μ A
- High PSRR: 70dB
- Thermal-shutdown and current-limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

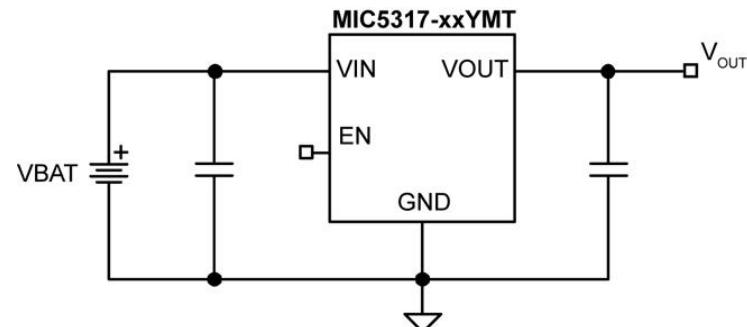
MIC5317

High-Performance Single 150mA LDO

Online
Datasheet

Features:

- Tiny 1mm × 1mm Thin DFN, SOT23-5 and TSOT23-5 packages
- Wide 2.5V to 6V operating range
- 150mA guaranteed output current
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 155mV @ 150mA
- Excellent load/line transient response
- Low quiescent current: 29 μ A
- High PSRR: 70dB
- Thermal-shutdown and current-limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

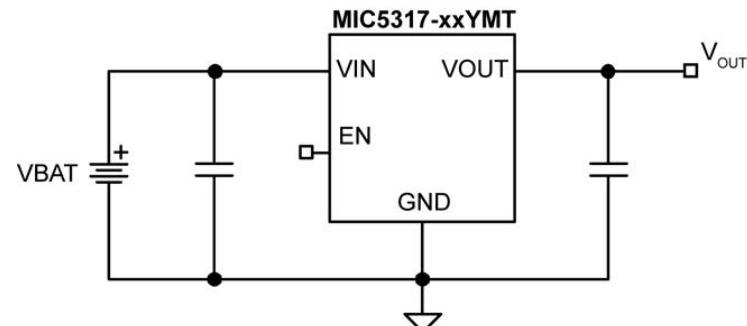
MIC5317

High-Performance Single 150mA LDO

Online
Datasheet

Features:

- Tiny 1mm × 1mm Thin DFN, SOT23-5 and TSOT23-5 packages
- Wide 2.5V to 6V operating range
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- Low dropout voltage: 155mV @ 150mA
- Excellent load/line transient response
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- High PSRR: 70dB
- Thermal-shutdown and current-limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

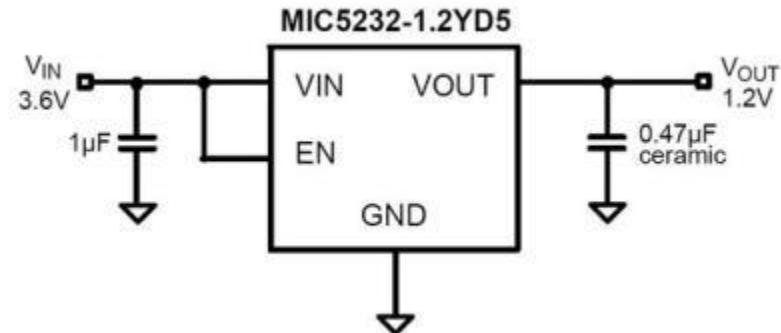
MIC5232

10mA Ultra-Low Quiescent Current µCap LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 7.0V
- Ultra-low I_Q : Only 1.8µA operating current
- Stable with 0.47µF ceramic output capacitor
- Low dropout voltage of 100mV at 10mA
- Reverse Battery Protection
- High output accuracy:
 - +2.0% initial accuracy
 - +3.0% over temperature
- Logic-Level Enable Input
- Miniature 6-pin 2mm x 2mm MLF® package
- Lead-Free Thin SOT-23-5 Package
- Tight Load and Line Regulation



[HOME](#)

[<< BACK](#)



MICROCHIP

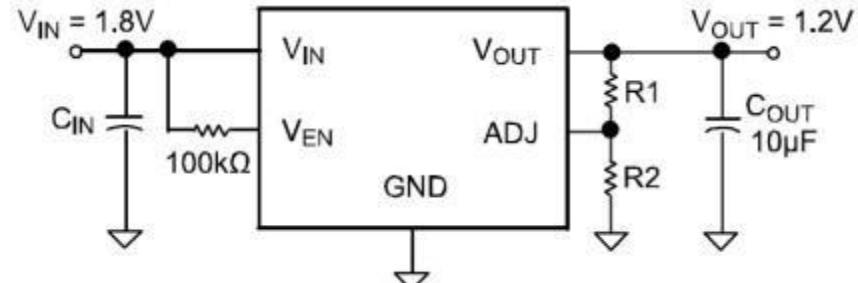
MIC69502

5A Low V_{IN} & Low V_{OUT} μ Cap LDO

Online
Datasheet

Features:

- Input voltage range: V_{IN} : 1.65V to 5.5V
- $\pm 1.0\%$ initial output tolerance
- Adjustable output voltage down to 0.5V
- Max. dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Stable with 10 μ F ceramic output capacitor (5A)
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- 7-Pin S-Pak package
- -40°C to $+125^{\circ}\text{C}$ temperature junction



HOME

<< BACK



MICROCHIP

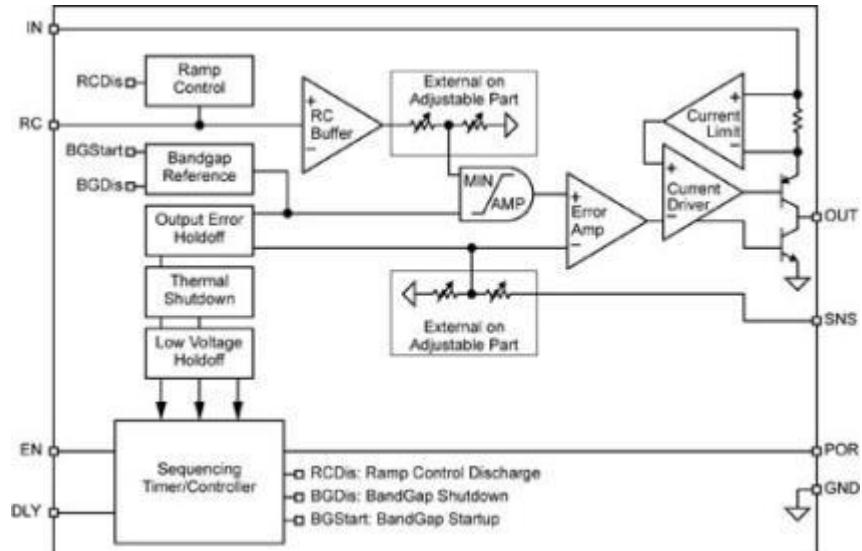
MIC68400

4A Sequencing LDO with Tracking and Ramp Control™

Online
Datasheet

Features:

- Stable with 10 μ F ceramic capacitor
- Input voltage range: 1.65V to 5.5V
- $\pm 2.0\%$ output tolerance over temperature
- 4A maximum output current - peak start up
- 3A continuous operating current
- Timing controlled sequencing on/off
- Tiny 4mm x 4mm MLF® package
- Fixed and adjustable output voltages
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature at 3A output current
- Thermal shutdown and current limit protection
- Programmable Ramp Control™ for in-rush current limiting and slew rate control of the output voltage during Turn-On and Turn-Off
- Single Master can control multiple Slave regulators with tracking output voltages



[HOME](#)

[<< BACK](#)



MICROCHIP

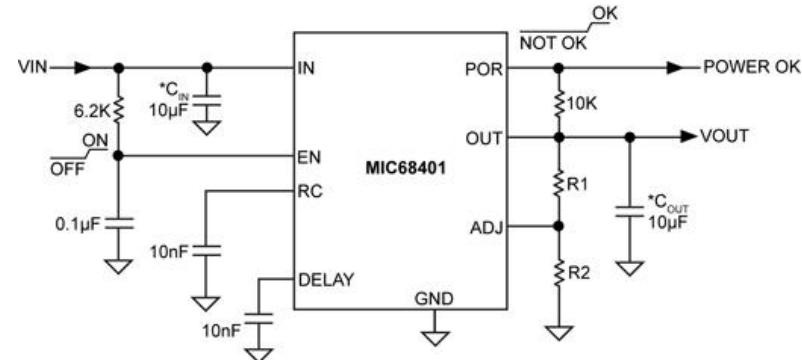
MIC68401

4A Sequencing LDO with Tracking and Ramp Control™

Online
Datasheet

Features:

- Stable with 10 μ F ceramic capacitor
- Input voltage range: 1.65V to 5.5V
- Low 0.5V reference voltage
- $\pm 2.0\%$ output tolerance over temperature
- 4A output current
- Timing-controlled sequencing on/off
- Programmable Ramp Control™ for inrush current limiting and slew rate control of the output voltage during turn-on
- Power-on-reset (POR) supervisor with programmable delay time
- Single master can control multiple slave regulators with tracking output voltages
- Small 4mm \times 4mm QFN package
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature at 3A output current
- Fixed and adjustable output voltages



*MINIMUM CAPACITANCE. FOR GUIDANCE ON THE VALUE OF C_{IN} AND C_{OUT}
PLEASE REFER TO THE APPLICATIONS INFORMATION SECTION

HOME

<< BACK



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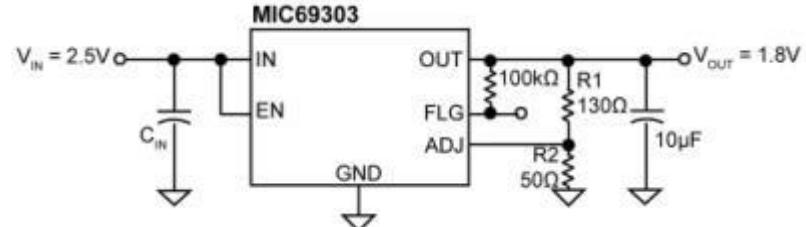
MIC69301/2/3

Single Supply Low V_{IN} & Low V_{OUT} 3A LDO

Online
Datasheet

Features:

- Input voltage range: V_{IN} : 1.65V to 5.5V
- Adjustable output voltage down to 0.5V
- Stable with 10 μ F ceramic output capacitor
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Excellent line and load regulation
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- Error flag output
- 5-Pin TO-263
- 5-Pin S-Pak package
- ePad SOIC-8 package
- 12-Pin 4mm x 4mm MLF® package (MIC69303 only)
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

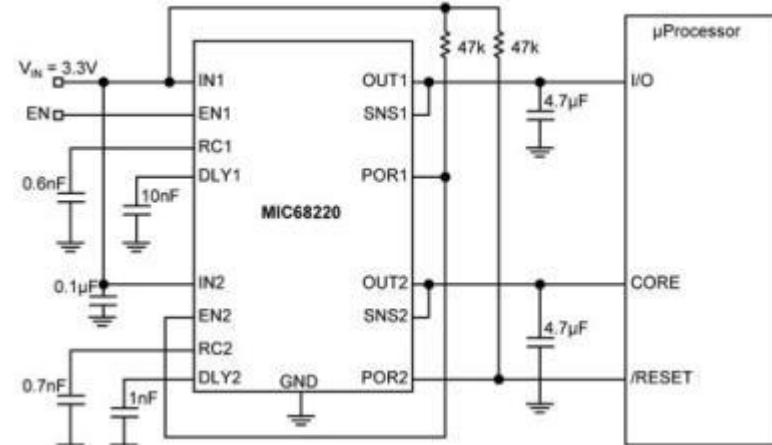
MIC68200

2A Sequencing LDO with Tracking and Ramp Control™

Online
Datasheet

Features:

- Stable with 4.7 μ F ceramic capacitor
- Input voltage range: 1.65V to 5.5V
- $\pm 1.0\%$ initial output tolerance
- 2A maximum output current -- peak start up
- 1A continuous operating current
- Tiny 3mm x 3mm MLF® package
- Programmable Ramp Control™ for in-rush current limiting and slew rate control of the output voltage
- Power-on reset (POR) supervisor with programmable delay time
- Single master can control multiple slave regulators with tracking output voltages
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature at 1A output current
- Fixed and adjustable output voltages
- Thermal shutdown and current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

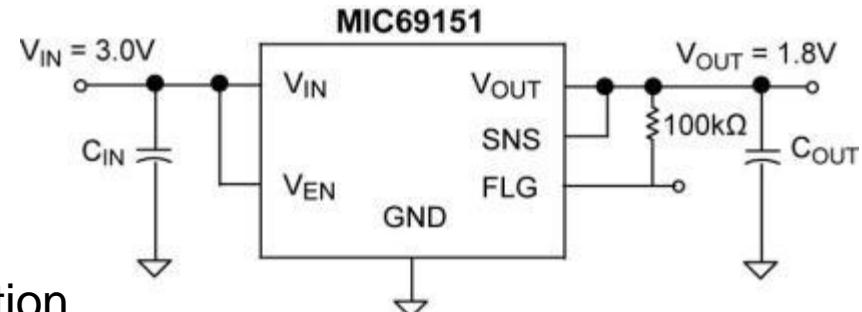
MIC69151/3

Single Supply Low V_{IN} & Low V_{OUT} 1.5A LDO

Online
Datasheet

Features:

- Adjustable output voltage down to 0.5V
- Stable with 10 μ F ceramic output capacitor
- 10-Pin 3mm x 3mm MLF® package
- Thermal shutdown and current limit protection
- Single input voltage range: V_{IN} : 1.65V to 5.5V
- -40°C to +125°C junction temperature
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature



[HOME](#)

[<< BACK](#)



MICROCHIP

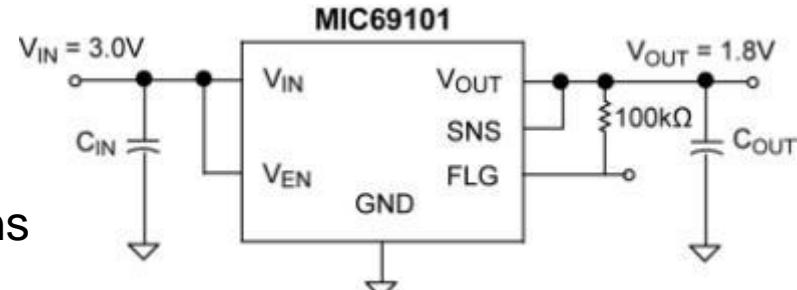
MIC69101/3

Single Supply Low V_{IN} & Low V_{OUT} 1A LDO

Online
Datasheet

Features:

- Adjustable output voltage down to 0.5V
- Stable with $4.7\mu F$ ceramic output capacitor
- Excellent line and load regulation specifications
- Logic-controlled shutdown
- Single input voltage range: V_{IN} : 1.65V to 5.5V
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature
- Thermal shutdown and current limit protection
- 10-Pin 3mm x 3mm MLF® package
- $-40^{\circ}C$ to $+125^{\circ}C$ junction temperature



HOME

<< BACK



MICROCHIP

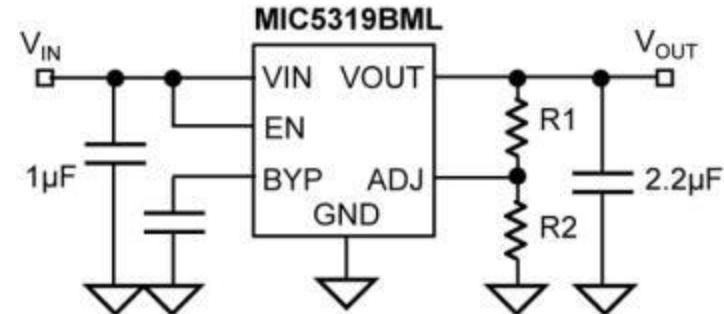
MIC5319

500mA μ Cap Ultra-Low Dropout High PSRR LDO

Online
Datasheet

Features:

- Ultra-low dropout voltage 200mV @ 500mA
- Input voltage range: 2.5 to 5.5V
- Stable with ceramic output capacitor
- Low output noise 30 μ V_{rms}
- Low quiescent current of 90 μ A total
- High PSRR, up to 70dB @1kHz
- Fast turn-on-time 40 μ s typical
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Tiny 2mm x 2mm MLF® package, 500mA continuous
- Thin SOT-23-5 package, 500mA peak



HOME

<< BACK



MICROCHIP

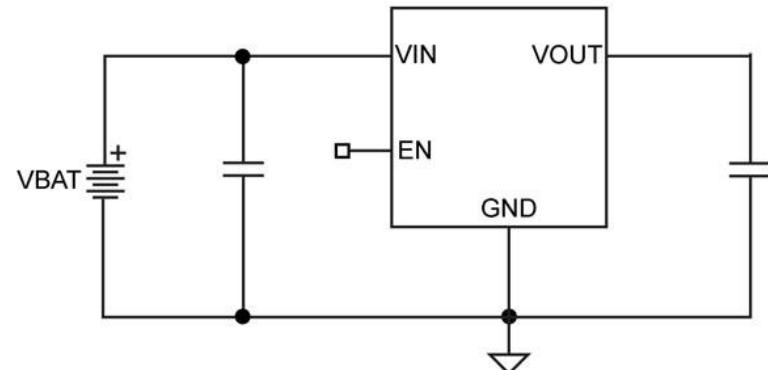
MIC5524

High-Performance 500mA LDO in Thin DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages down to 1.0V
- 500mA guaranteed output current
- High output initial accuracy ($\pm 1\%$)
- High PSRR: 80dB
- Low quiescent current: 38 μ A
- Stable with 2.2 μ F ceramic output capacitors
- Low dropout voltage: 260mV @ 500mA
- Autodischarge and internal enable pulldown
- Thermal-shutdown and current-limit protection
- 4-pin 1mm x 1mm Thin DFN package



[HOME](#)

[<< BACK](#)



MICROCHIP

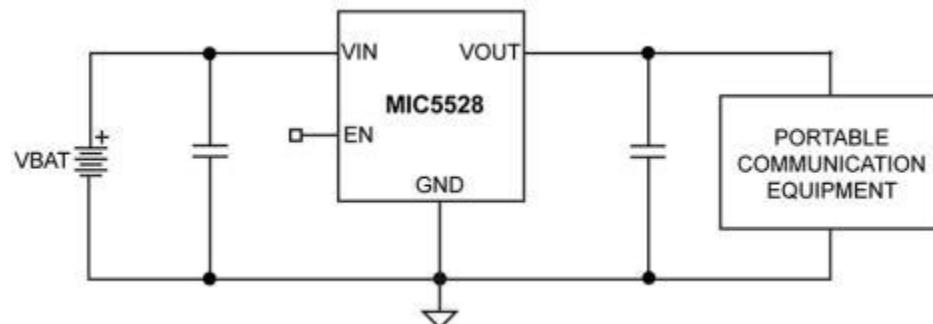
MIC5528

High-Performance 500mA LDO in Thin DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages down to 1.0V
- $\pm 2\%$ Room temperature accuracy
- Low quiescent current: 38 μ A
- Stable with 2.2 μ F ceramic output capacitors
- Low dropout voltage: 260mV @ 500mA
- Autodischarge and internal enable pulldown
- Thermal-shutdown and current-limit protection
- 6-pin 1.2mm x 1.2mm extra thin DFN package
- 6-pin 1.2mm x 1.2mm thin DFN package



[HOME](#)

[<< BACK](#)



MICROCHIP

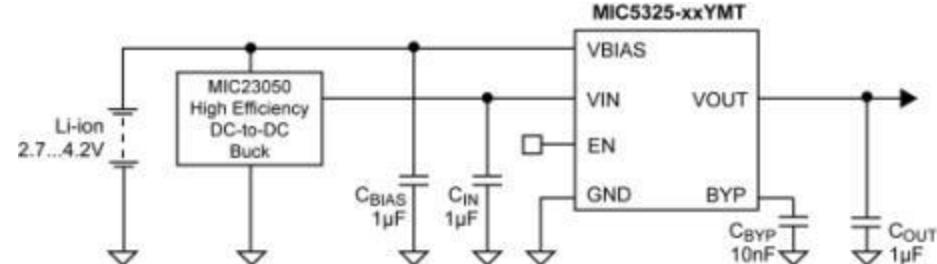
MIC5325

Low V_{IN}/V_{OUT} 400mA ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Wide input voltage range: 1.7V to 5.5V
- Very fast transient response
- Bias supply voltage range: 2.5V to 5.5V
- Ultra-low ground current: 35 μ A typical
- 400mA maximum output current per LDO
- Thermal shutdown and current limit protection
- Tiny 6-pin 2mm x 2mm Thin MLF® package
- Ultra-low dropout voltage ULDO™: 110mV at 400mA
- Stable with 1 μ F ceramic output capacitor
- $\pm 2\%$ voltage accuracy over temperature
- Adjustable output voltage range: 0.8V to 2.0V



[HOME](#)

[<< BACK](#)



MICROCHIP

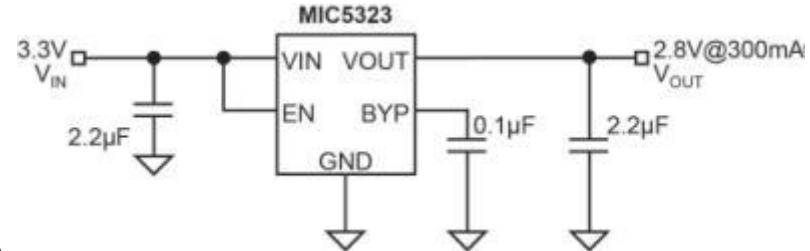
MIC5323

Low V_{IN}/V_{OUT} 400mA ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Input voltage range: 2.65 to 5.5V
- Stable with ceramic output capacitor
- Ultra-low dropout voltage of 120mV at 300mA
- 300mA guaranteed output current
- Low output noise: $20\mu V_{rms}$
- High PSRR: up to 80dB at 1kHz
- Less than 30 μ s turn-on time with $C_{BYP} = 0.1\mu F$
- High output accuracy: $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- 6-pin 2mm \times 2mm Thin MLF® package
- Thin SOT-23-5 package



HOME

<< BACK



MICROCHIP

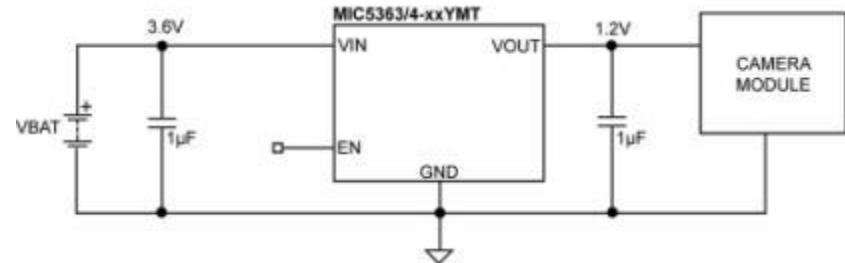
MIC5363/4

High-PSRR 300mA μ Cap LDO in 1.2mm x 1.2mm Thin MLF®

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- 300mA output
- High output accuracy: $\pm 2\%$
- Low quiescent current: typically 38 μ A
- Stable with 1 μ F ceramic capacitors
- High PSRR: 70dB at 1kHz
- Low dropout voltage: 225mV at 300mA
- Thermal shutdown protection
- Current limit protection
- Active output discharge circuit: MIC5364
- 6-pin 1.2mm x 1.2mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

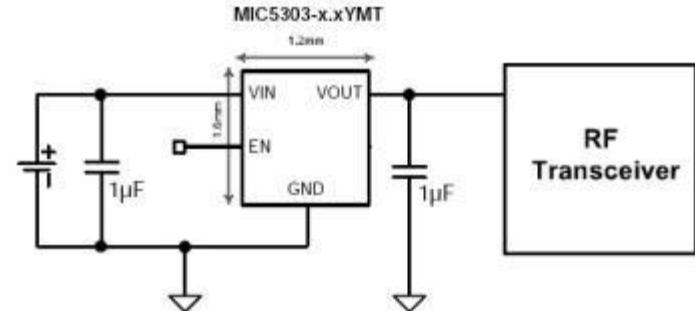
MIC5303

300mA Ultra-Small ULDO

Online
Datasheet

Features:

- Ultra-small 1.2mm x 1.6mm Thin MLF® package
- Low dropout voltage: 100mV at 300mA
- Output noise: $120\mu\text{V}_{\text{rms}}$
- Input voltage range: 2.3V to 5.5V
- 300mA guaranteed output current
- Stable with ceramic output capacitors
- Low quiescent current: 85 μA total
- 35 μs turn-on time
- High output accuracy:
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

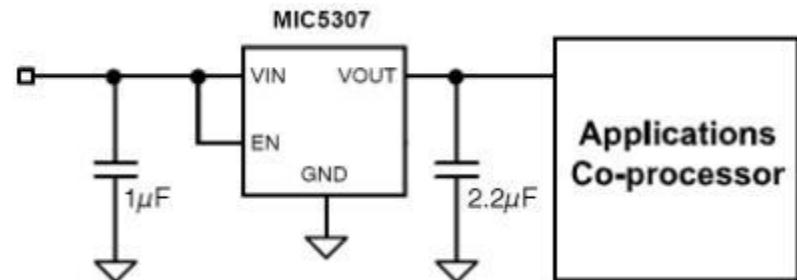
MIC5307

300mA Micropower μ Cap Baseband LDO

Online
Datasheet

Features:

- Input voltage range: 2.4V to 5.5V
- Ultra-low I_Q : only 20 μ A operating current
- Stable with ceramic output capacitor
- Low dropout voltage of 120mV at 300mA
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

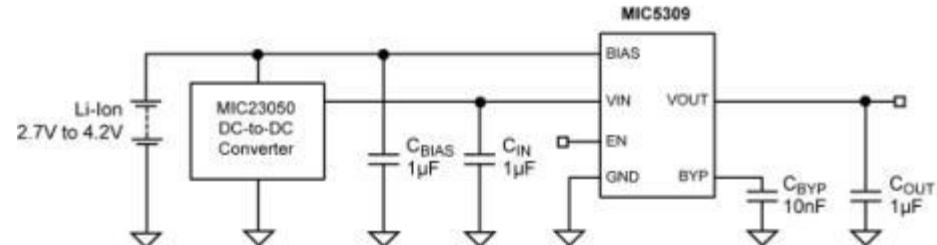
MIC5309

Low V_{IN} / V_{OUT} 300mA High PSRR ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Input voltage range: 1.7V to 5.5V
- Guaranteed 300mA over temperature
- High PSRR: up to 90dB at 1kHz
- Ultra-low dropout voltage: 100mV for typical 300mA load
- Output Voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- 300mA maximum output current at 1.7V input voltage
- Very fast transient response ideal for digital loads
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package
- 6-pin TSOT-23 package



HOME

<< BACK



MICROCHIP

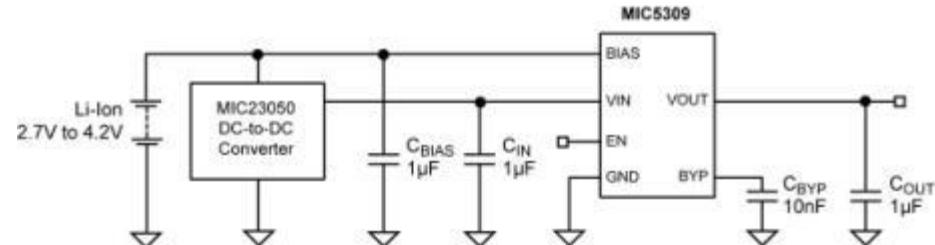
MIC5309

Low V_{IN} / V_{OUT} 300mA High PSRR ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Input voltage range: 1.7V to 5.5V
- Guaranteed 300mA over temperature
- High PSRR: up to 90dB at 1kHz
- Ultra-low dropout voltage: 100mV for typical 300mA load
- Output Voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- 300mA maximum output current at 1.7V input voltage
- Very fast transient response ideal for digital loads
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package
- 6-pin TSOT-23 package



HOME

<< BACK



MICROCHIP

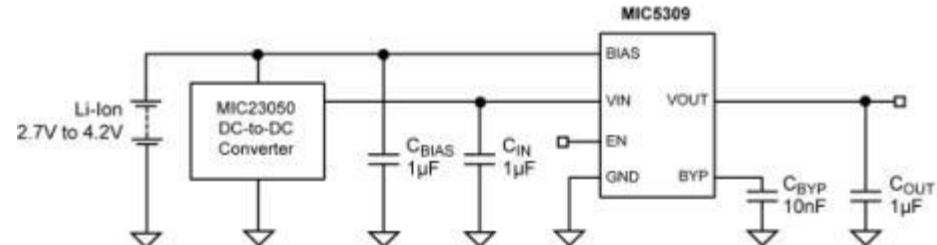
MIC5309

Low V_{IN} / V_{OUT} 300mA High PSRR ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Input voltage range: 1.7V to 5.5V
- Guaranteed 300mA over temperature
- High PSRR: up to 90dB at 1kHz
- Ultra-low dropout voltage: 100mV for typical 300mA load
- Output Voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- 300mA maximum output current at 1.7V input voltage
- Very fast transient response ideal for digital loads
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package
- 6-pin TSOT-23 package



[HOME](#)

[<< BACK](#)



MICROCHIP

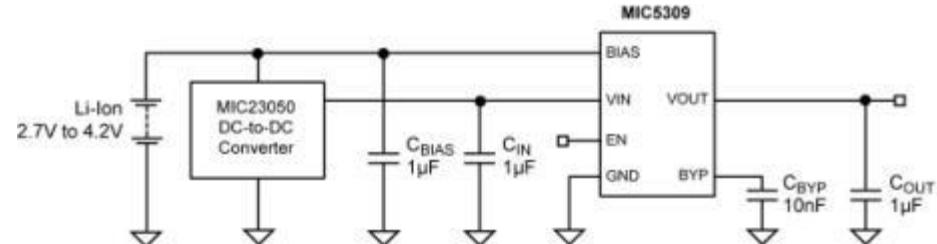
MIC5309

Low V_{IN} / V_{OUT} 300mA High PSRR ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Input voltage range: 1.7V to 5.5V
- Guaranteed 300mA over temperature
- High PSRR: up to 90dB at 1kHz
- Ultra-low dropout voltage: 100mV for typical 300mA load
- Output Voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- 300mA maximum output current at 1.7V input voltage
- Very fast transient response ideal for digital loads
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package
- 6-pin TSOT-23 package



HOME

<< BACK



MICROCHIP

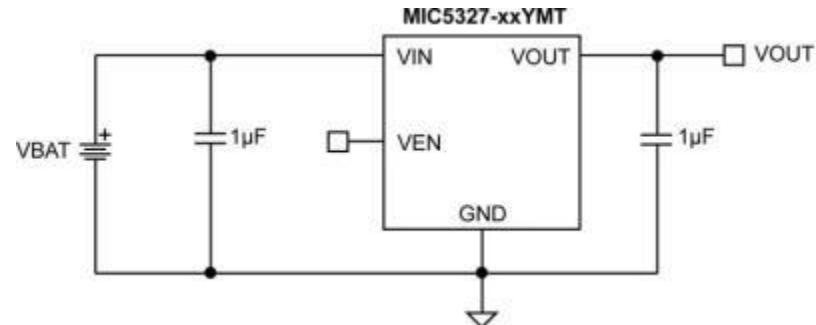
MIC5327

300mA Low Quiescent Current LDO

Online
Datasheet

Features:

- 300mA output current
- Input voltage range: 2.3V to 5.5V
- Low 24 μ A operating current
- Low dropout voltage of 180mV at 300mA
- Fixed output voltages
- Stable with 1 μ F ceramic capacitors
- Thermal shutdown and current limit protection
- Tiny 4-pin 1.2mm x 1.6mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

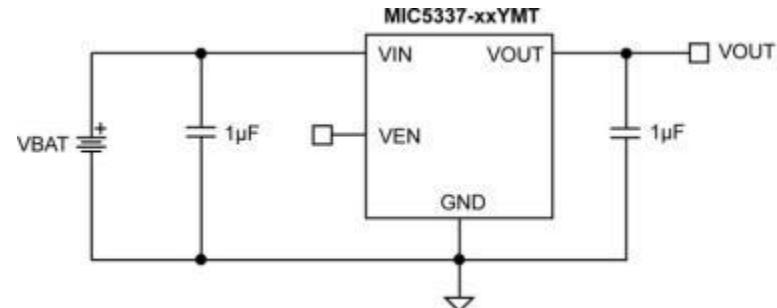
MIC5337

1.2mm x 1.6mm 300mA Low I_Q & Ultra Low Dropout LDO with Auto Discharge

Online
Datasheet

Features:

- 300mA output current
- Low I_Q : only 24 μ A operating current
- Low dropout voltage: 180mV at 300mA
- Active discharge when enable pin is low
- Input voltage range: 2.3V to 5.5V
- Fixed output voltages
- Stable with 1 μ F ceramic capacitors
- Thermal shutdown and current limit protection
- Tiny 4-pin 1.2mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

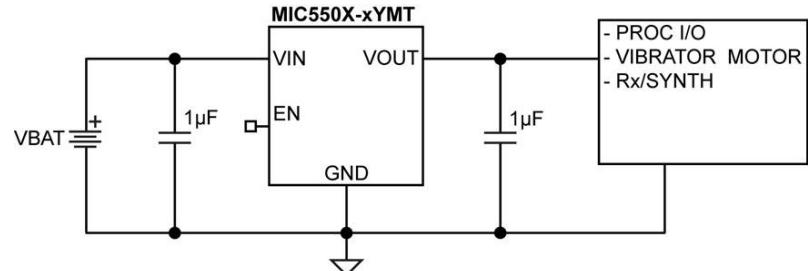
MIC5501/2/3/4

300mA LDO in 1.0mm x 1.0mm DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages from 1.0V to 3.3V
- 300mA guaranteed output current
- High output accuracy ($\pm 2\%$)
- Low quiescent current: 38 μ A
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 160mV @ 300mA
- Output discharge circuit: MIC5502, MIC5504
- Internal enable pull-down: MIC5503, MIC5504
- Thermal-shutdown and current-limit protection
- 4-lead 1.0mm x 1.0mm Thin DFN package
- MIC5504 5-pin SOT23 package



HOME

<< BACK



MICROCHIP

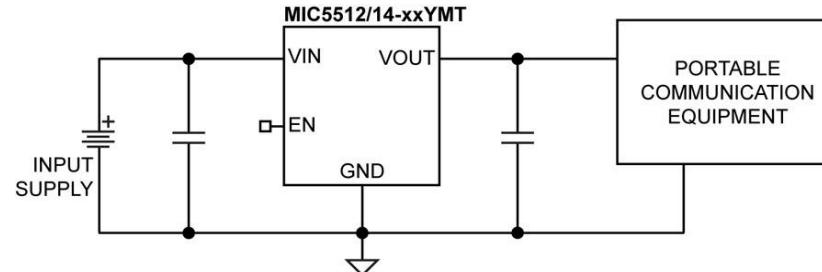
MIC5512/4

300mA LDO in 1.6mm x 1.6mm Thin DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages from 1.0V to 3.3V
- 300mA guaranteed output current
- $\pm 1\%$ initial output accuracy
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 160mV @ 300mA
- Output discharge circuit
- Internal enable pull-down resistor (MIC5514)
- Available in ultra-small 6-pin 1.6mm x 1.6mm Thin DFN package



HOME

<< BACK



MICROCHIP

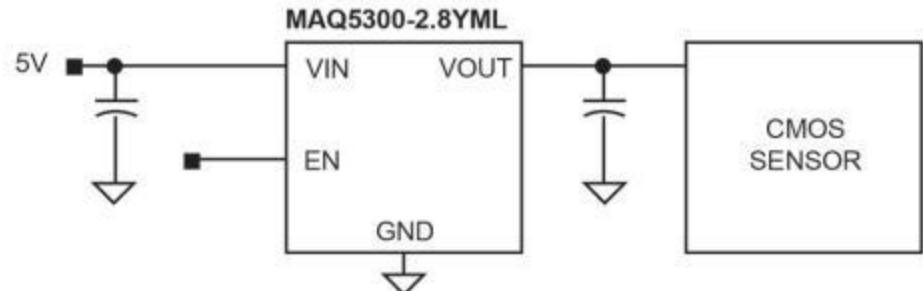
MAQ5300

Automotive Qualified Single Output 300mA μ Cap LDO

Online
Datasheet

Features:

- Small 2mm × 2mm DFN package
- Low dropout voltage: 100mV at 300mA
- Output noise 120 μ V_{RMS}
- Input voltage range: 2.3V to 5.5V
- 300mA guaranteed output current
- Stable with ceramic output capacitors
- Low quiescent current: 85 μ A total
- 30 μ s turn-on time
- High output accuracy
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current-limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

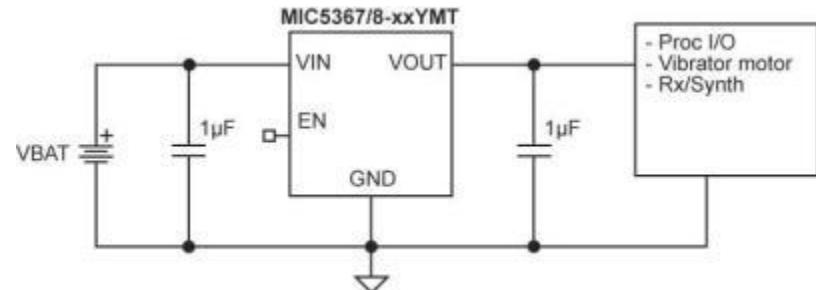
MIC5367/8

High Performance 200mA Peak LDO in 1.6mm x 1.6mm Thin MLF®

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 180mV at 150mA
- Excellent load/line transient response
- Low quiescent current: 29 μ A
- 200mA peak (150mA continuous) output current
- High PSRR: 65dB
- Output discharge circuit -- MIC5368
- High output accuracy: $\pm 2\%$ initial accuracy
- Tiny 1.6mm x 1.6mm Thin MLF® package
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

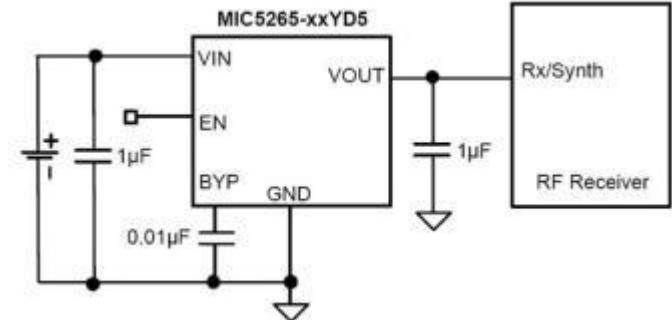
MIC5265

150mA μ Cap LDO Regulator

Online
Datasheet

Features:

- 2.7V to 5.5V supply voltage
- Low 90 μ A quiescent current per LDO
- Thin SOT-23-5 package
- Low Noise: 57 μ V_{rms}
- High PSRR: 70dB at 1kHz
- Low dropout voltage: 210mV at 150mA
- Stable with ceramic output capacitors
- Independent enable pins
- Fast transient response
- Active shutdown on both outputs



[HOME](#)

[<< BACK](#)



MICROCHIP

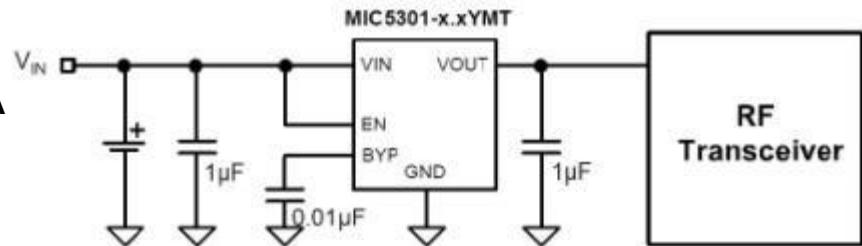
MIC5301

Single 150mA μ Cap ULDO

Online
Datasheet

Features:

- Ultra-low dropout voltage: 40mV at 150mA
- Input voltage range: 2.3V to 5.5V
- 150mA guaranteed output current
- Stable with ceramic output capacitors
- Ultra-low output noise: 30 μ V_{rms}
- Low quiescent current: 85 μ A total
- High PSRR: up to 75dB at 1kHz
- 35 μ s turn-on time
- High output accuracy:
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm MLF® lead-less package



HOME

<< BACK



MICROCHIP

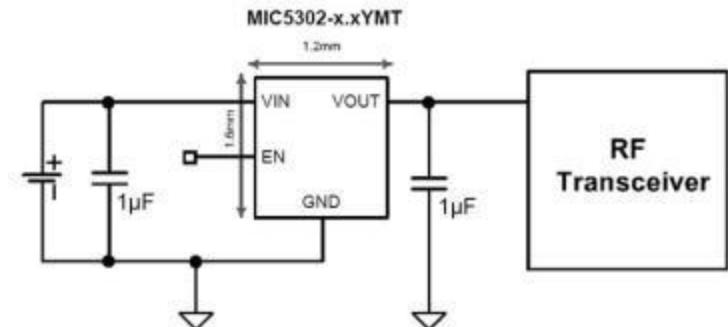
MIC5302

150mA ULDO in Ultra-Small 1.2mm x 1.6mm Thin MLF®

Online
Datasheet

Features:

- Ultra-small 1.2mm x 1.6mm Thin MLF® package
- Low dropout voltage: 50mV at 150mA
- Output noise: $120\mu\text{V}_{\text{rms}}$
- Input voltage range: 2.3V to 5.5V
- 150mA guaranteed output current
- Stable with ceramic output capacitors
- Low quiescent current: 85 μA total
- 35 μs turn-on time
- High output accuracy:
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

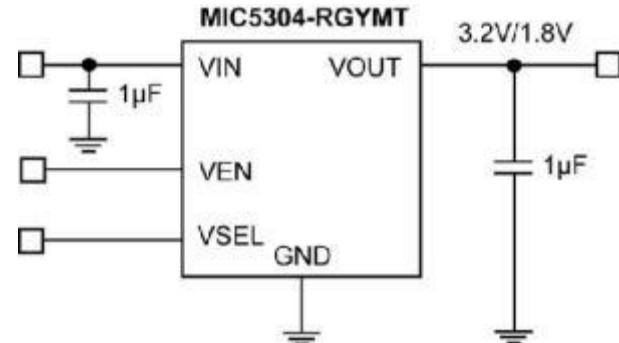
MIC5304

Single 150mA Low Operating Current LDO with Dual Voltage Pin Select

Online
Datasheet

Features:

- 150mA output current
- Logic-controlled selectable output voltage
- Input voltage range: 2.3V to 5.5V
- Low 24 μ A operating current
- Fast transition time between selected output voltages
- Stable with 1 μ F ceramic capacitors
- Low dropout voltage: 85mV at 150mA
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

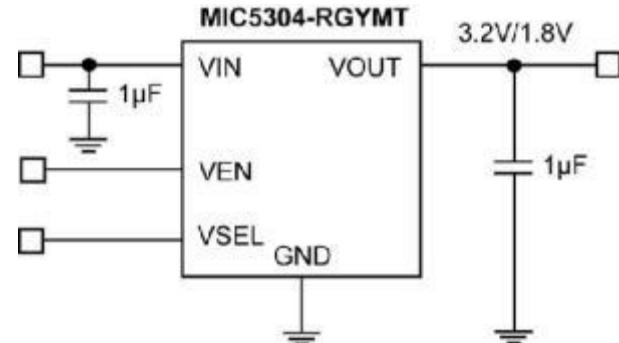
MIC5304

Single 150mA Low Operating Current LDO with Dual Voltage Pin Select

Online
Datasheet

Features:

- 150mA output current
- Logic-controlled selectable output voltage
- Input voltage range: 2.3V to 5.5V
- Low 24 μ A operating current
- Fast transition time between selected output voltages
- Stable with 1 μ F ceramic capacitors
- Low dropout voltage: 85mV at 150mA
- Thermal shutdown and current limit protection
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

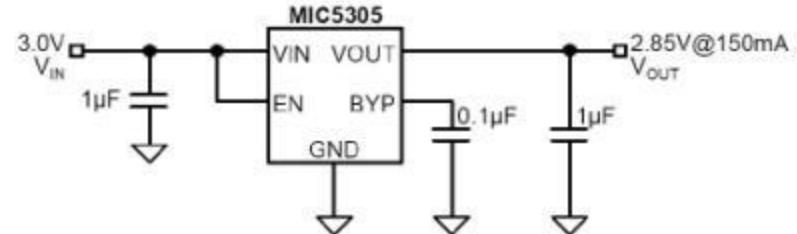
MIC5305

150mA μ Cap Ultra-Low Dropout LDO Regulator

Online
Datasheet

Features:

- Ultra-low dropout voltage: 60mV at 150mA
- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 150mA guaranteed output current
- Low output noise: $20\mu\text{V}_{\text{rms}}$
- Low quiescent current: $90\mu\text{A}$ total
- High PSRR: up to 85dB at 1kHz
- Less than $30\mu\text{s}$ turn-on time w/ $C_{\text{BYP}} = 0.01\mu\text{F}$
- High output accuracy
- Thermal shutdown protection
- Current limit protection
- Tiny 6-pin 2mm x 2mm MLF® package
- Ultra-Thin 6-pin 2mm x 2mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

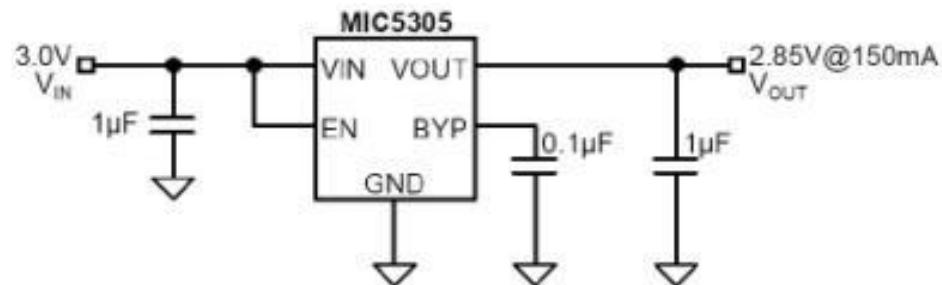
MIC5305

150mA μ Cap Ultra-Low Dropout LDO Regulator

Online
Datasheet

Features:

- Ultra-low dropout voltage: 60mV at 150mA
- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 150mA guaranteed output current
- Low output noise: $20\mu\text{V}_{\text{rms}}$
- Low quiescent current: $90\mu\text{A}$ total
- High PSRR: up to 85dB at 1kHz
- Less than $30\mu\text{s}$ turn-on time w/ $C_{\text{BYP}} = 0.01\mu\text{F}$
- High output accuracy
- Thermal shutdown protection
- Current limit protection
- Tiny 6-pin 2mm x 2mm MLF® package
- Ultra-Thin 6-pin 2mm x 2mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

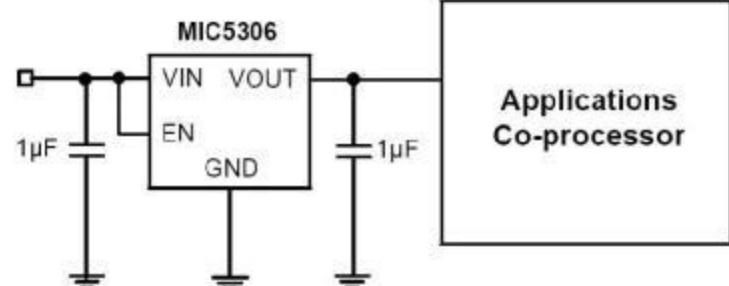
MIC5306

150mA Micropower μ Cap Baseband LDO

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Ultra-low I_Q : only 16 μ A operating current
- Stable with ceramic output capacitor
- Low dropout voltage: 45mV at 100mA
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

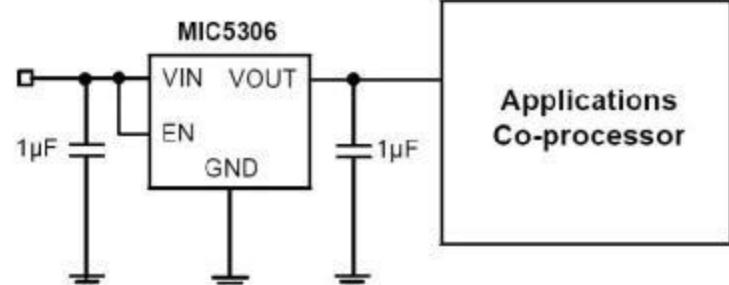
MIC5306

150mA Micropower μ Cap Baseband LDO

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Ultra-low I_Q : only 16 μ A operating current
- Stable with ceramic output capacitor
- Low dropout voltage: 45mV at 100mA
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

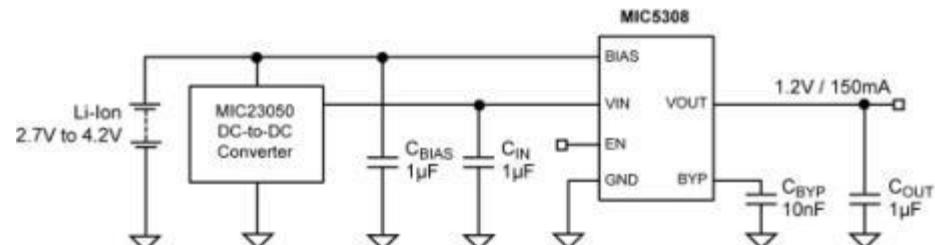
MIC5308

Low V_{IN}/V_{OUT} 150mA High PSRR ULDO with Ultra-Low IQ

Online
Datasheet

Features:

- Input voltage range: 1.6V to 5.5V
- High PSRR: up to 90dB at 1kHz
- Guaranteed 150mA over temperature
- Ultra-low dropout voltage: 45mV at 150mA
- Output voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- Thermal shutdown and current limit protection
- 1.6x1.6mm DFN (MLF) and SOT23-6 package



HOME

<< BACK



MICROCHIP

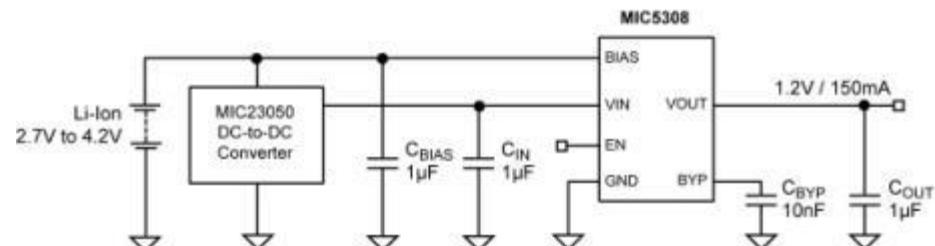
MIC5308

Low V_{IN} / V_{OUT} 150mA High PSRR ULDO with Ultra-Low IQ

Online
Datasheet

Features:

- Input voltage range: 1.6V to 5.5V
- High PSRR: up to 90dB at 1kHz
- Guaranteed 150mA over temperature
- Ultra-low dropout voltage: 45mV at 150mA
- Output voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- Thermal shutdown and current limit protection
- 1.6x1.6mm DFN (MLF) and SOT23-6 package



HOME

<< BACK



MICROCHIP

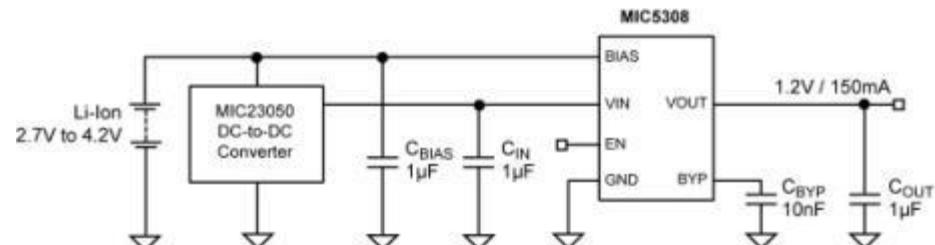
MIC5308

Low V_{IN} / V_{OUT} 150mA High PSRR ULDO with Ultra-Low IQ

Online
Datasheet

Features:

- Input voltage range: 1.6V to 5.5V
- High PSRR: up to 90dB at 1kHz
- Guaranteed 150mA over temperature
- Ultra-low dropout voltage: 45mV at 150mA
- Output voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- Thermal shutdown and current limit protection
- 1.6x1.6mm DFN (MLF) and SOT23-6 package





MICROCHIP

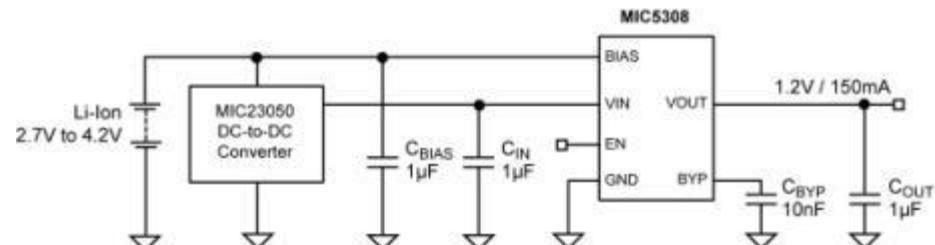
MIC5308

Low V_{IN}/V_{OUT} 150mA High PSRR ULDO with Ultra-Low IQ

Online
Datasheet

Features:

- Input voltage range: 1.6V to 5.5V
- High PSRR: up to 90dB at 1kHz
- Guaranteed 150mA over temperature
- Ultra-low dropout voltage: 45mV at 150mA
- Output voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- Thermal shutdown and current limit protection
- 1.6x1.6mm DFN (MLF) and SOT23-6 package



HOME

<< BACK



MICROCHIP

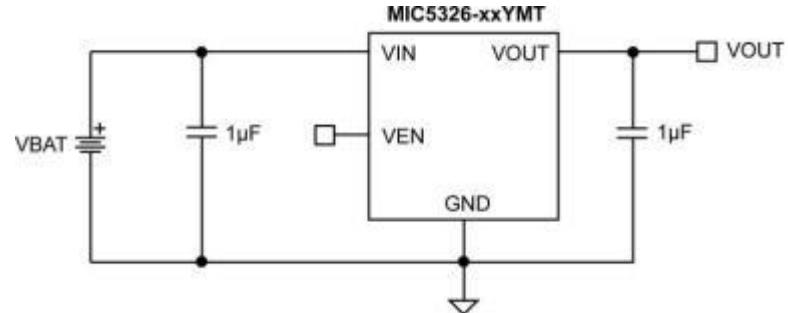
MIC5326

150mA Low Operating Current LDO

Online
Datasheet

Features:

- 150mA output current
- Input voltage range: 2.3V to 5.5V
- Low 24 μ A operating current
- Low dropout voltage of 85mV at 150mA
- Fixed output voltage
- Stable with 1 μ F ceramic capacitors
- Thermal shutdown and current limit protection
- Tiny 4-pin 1.2mm x 1.6mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

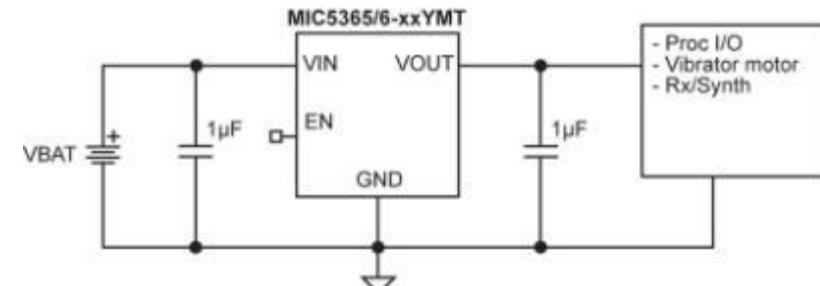
MIC5365/66

High Performance Single 150mA LDO

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current
- Stable with 1uF ceramic output capacitors
- Low dropout voltage: 180mV at 150mA
- Tiny 1mm x 1mm Thin MLF®, SC-70-5, and Thin SOT23-5 packages
- Excellent Load/Line Transient Response
- Low quiescent current: 32 μ A
- High PSRR: 70dB
- Output discharge circuit (MIC5366)
- High output accuracy:
 - $\pm 2\%$ initial accuracy
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

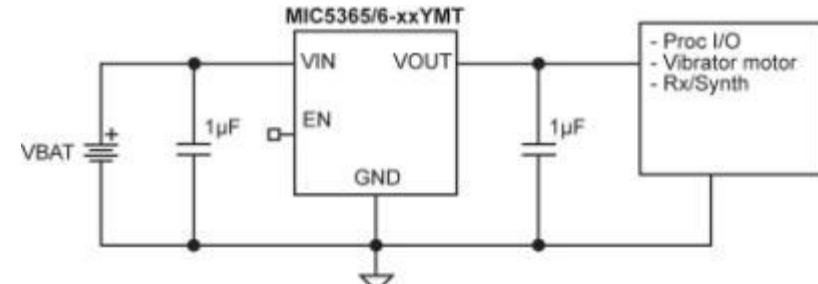
MIC5365/66

High Performance Single 150mA LDO

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current
- Stable with ceramic output capacitors
- Low dropout voltage: 180mV at 150mA
- Tiny 1mm x 1mm Thin MLF®, SC-70-5, and Thin SOT23-5 packages
- Excellent Load/Line Transient Response
- Low quiescent current: 32 μ A
- High PSRR: 70dB
- Output discharge circuit (MIC5366)
- High output accuracy:
 - $\pm 2\%$ initial accuracy
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

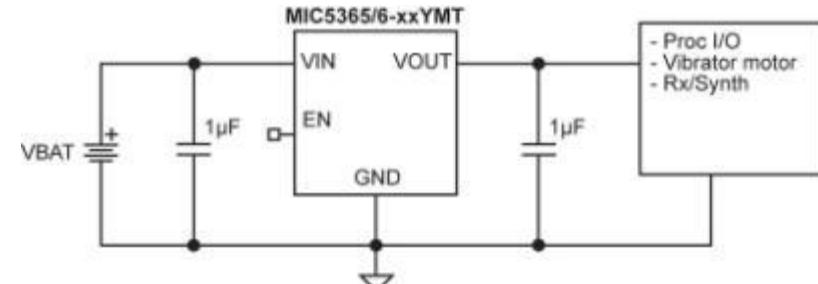
MIC5365/66

High Performance Single 150mA LDO

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current
- Stable with ceramic output capacitors
- Low dropout voltage: 180mV at 150mA
- Tiny 1mm x 1mm Thin MLF®, SC-70-5, and Thin SOT23-5 packages
- Excellent Load/Line Transient Response
- Low quiescent current: 32 μ A
- High PSRR: 70dB
- Output discharge circuit (MIC5366)
- High output accuracy:
 - $\pm 2\%$ initial accuracy
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

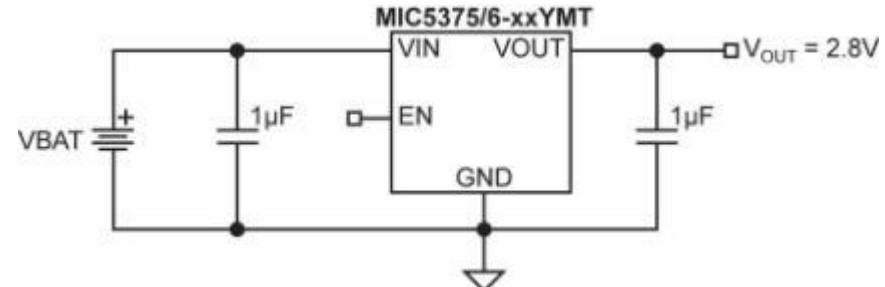
MIC5375/6/7/8

High Performance Low Dropout 150mA LDO

Online
Datasheet

Features:

- Low cost 5-pin SC-70 package
- Low dropout voltage: 120mV at 150mA
- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current
- 4-pin 1mm x 1mm Thin MLF® package -- MIC5375/6
- 8-pin 1.2mm x 1.2mm Thin MLF® package -- MIC5377/8
- Stable with 0402 ceramic capacitors as low as 1 μ F
- Low quiescent current: 29 μ A
- Fixed output voltages -- MIC5375/6
- Adjustable output -- MIC5377/8
- Output discharge circuit -- MIC5376/8
- High output accuracy:
 - $\pm 2\%$ initial accuracy
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

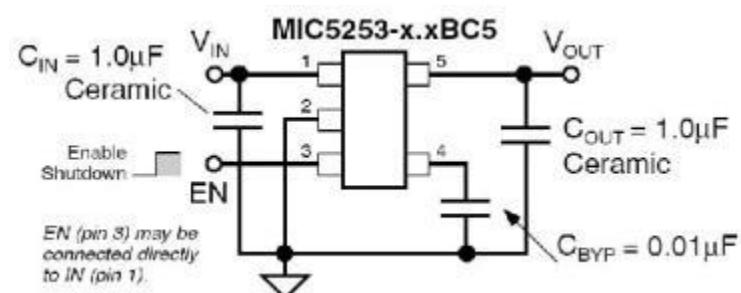
MIC5253

100mA Low Noise μ Cap Teeny™ LDO

Online
Datasheet

Features:

- Input voltage range: 2.7V to 5.5V
- Teeny™ SC-70-5 package
- Ultra-low output noise: 30 μ V_{rms}
- Stability with ceramic output capacitors
- 100mA continuous output current, 150mA peak current
- Ultra-low dropout: 165mV at 100mA
- High output accuracy:
 - 1.5% initial accuracy
 - 3.0% over temperature
- Low ground current 95 μ A
- TTL logic-controlled enable input
- Zero off-mode current
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

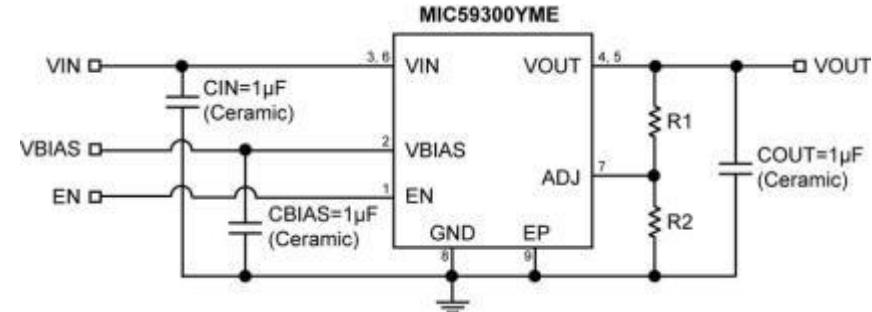
MIC59300

Ultra High Speed 3A LDO

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $3.8V$
 - $V_{BIAS} = 3.0V$ to $5.5V$
- Stable with $1\mu F$ ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage of $500mV$ over temperature
- Adjustable output voltage down to $0.5V$
- Ultra-fast transient response
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- $-40^{\circ}C$ to $+125^{\circ}C$ junction temperature range
- TO-263 and 8-pin ePad SOIC
- Pin compatible upgrade to MIC49300



HOME

<< BACK



MICROCHIP

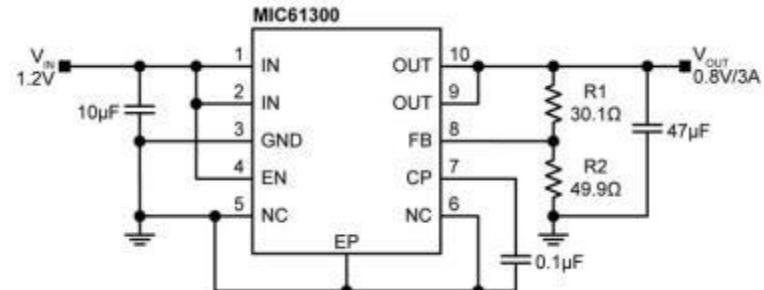
MIC61300

Low Input Voltage Single-Supply High-Current LDO

Online
Datasheet

Features:

- Single V_{IN} rail: 1.1V to 3.6V
- Soft-start control via external capacitor
- Typical dropout of 150mV at room temperature
- Output voltage adjustable down to 0.5V
- Soft-start control via external capacitor
- Excellent line and load regulation
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- 10-pin 3mm x 3mm MLF® package
- 10-pin ePad MSOP package
- Junction temperature range from -40°C to +125°C
- Maximum dropout of 350mV at full load over temperature
- Soft-start control via external capacitor



[HOME](#)

[<< BACK](#)



MICROCHIP

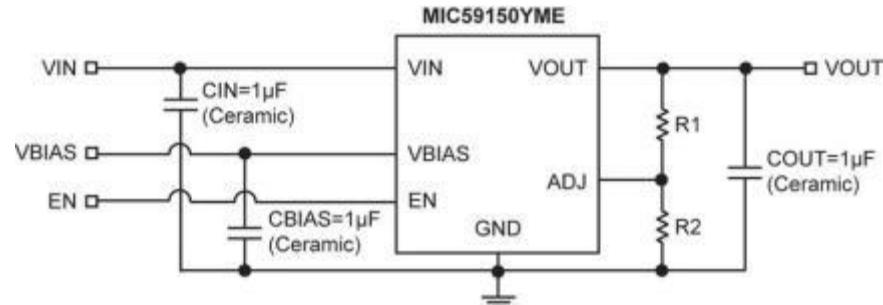
MIC59150

Ultra High Speed 1.5A LDO

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $3.8V$
 - $V_{BIAS} = 3.0V$ to $5.5V$
- Stable with $1\mu F$ ceramic capacitor
- Maximum dropout voltage of $250mV$ over temperature
- Adjustable output voltage down to $0.5V$
- Ultra fast transient response
- Excellent line and load regulation specifications
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- Junction temperature range: $-40^{\circ}C$ to $+125^{\circ}C$
- 8-pin EPAD SOIC



HOME

<< BACK



MICROCHIP

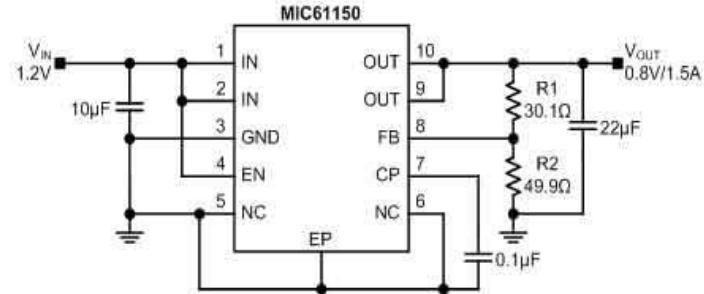
MIC61150

Low Input Voltage Single-Supply High-Current LDO

Online
Datasheet

Features:

- Single V_{IN} rail: 1.1V to 3.6V
- Typical dropout of 75mV at room temperature
- C_{OUT} as low as 22 μ F (ceramic capacitor)
- Output voltage adjustable down to 0.5V
- Soft-start control via external capacitor
- Excellent line and load regulation
- Logic controlled shutdown
- Thermal shutdown and current limit protection
- 10-pin 3mm x 3mm MLF® package
- 10-pin ePad MSOP package
- Output voltage accuracy: $\pm 2.5\%$ over temperature
- Maximum dropout of 200mV at full load over temperature
- Junction temperature range from -40°C to +125°C



[HOME](#)

[<< BACK](#)



MICROCHIP

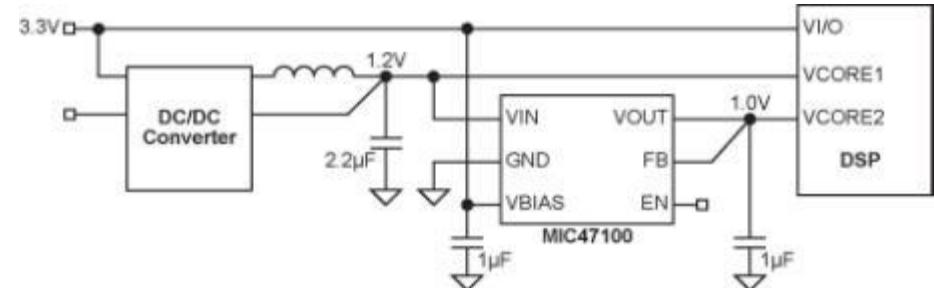
MIC47100

1A High Speed Low V_{IN} LDO

Online
Datasheet

Features:

- Operating voltage range:
 - Input Supply: 1.0V to 3.6V
 - Bias Supply: 2.3V to 5.5V
- 0.8V to 2.0V output voltage range
- PSRR >50dB at 100kHz
- Stable with a 1µF ceramic output capacitor
- Low dropout voltage of 80mV at 1A
- High output voltage accuracy:
 - ±1.5% initial accuracy
 - ±2% over temperature
- UVLO on both supply voltages for easy turn-on
- ePad MSOP-8 -- small form factor power package
- Thermally enhanced 2mm x 2mm MLF® -- smallest solution



[HOME](#)

[<< BACK](#)



MICROCHIP

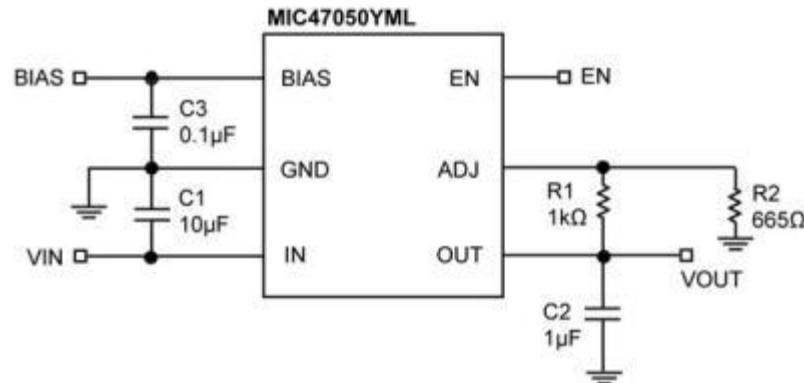
MIC47050

500mA ULDO with Low Input and Low Output Voltage

Online
Datasheet

Features:

- Automotive Qualified
- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- $\pm 1.5\%$ initial output voltage accuracy
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range: 0.4V to 2.0V
- Logic-level enable input
- 400mA maximum output current per LDO
- Very fast transient response
- UVLO on both supply packages
- Thermally enhanced 2mm x 2mm MLF® and Thin MLF® packages
- Junction temperature range of -40°C to +125°C
- Low dropout voltage ULDO™: 44mV at 500mA



[HOME](#)

[<< BACK](#)



MICROCHIP

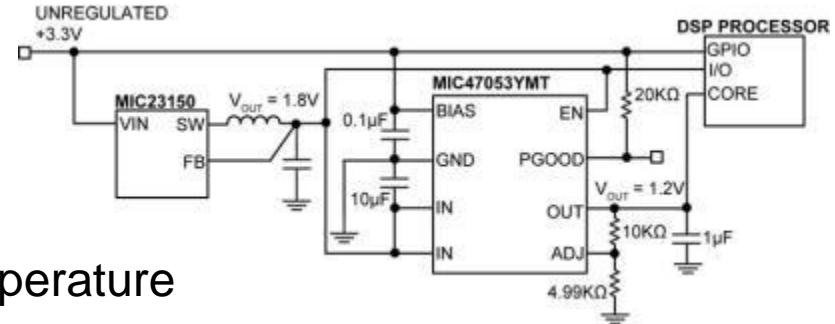
MIC47053

500mA Micropower ULDO™ Linear Regulator

Online
Datasheet

Features:

- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- Low dropout voltage: 49mV at 500mA
- $\pm 2\%$ initial output voltage accuracy over temperature
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range down to 0.4V
- Logic-level enable input
- UVLO on both supply voltages
- High bandwidth - very fast transient response
- Low shutdown current: 0.1 μ A typical
- Thermally enhanced 2mm x 2mm Thin DFN package
- Junction temperature range of -40°C to +125°C



[HOME](#)

[<< BACK](#)



MICROCHIP

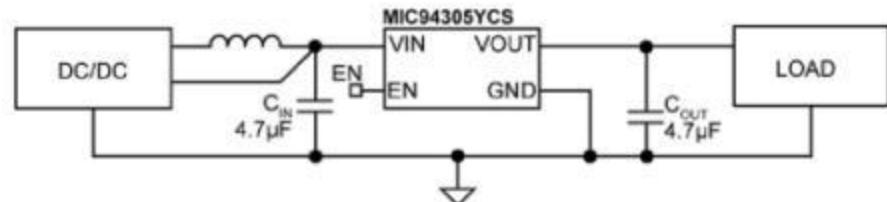
MIC94305

500mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 500mA output current
- Current-limit and thermal-limit protected
- 1.6mm x 1.6mm, 6-pin Thin DFN
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

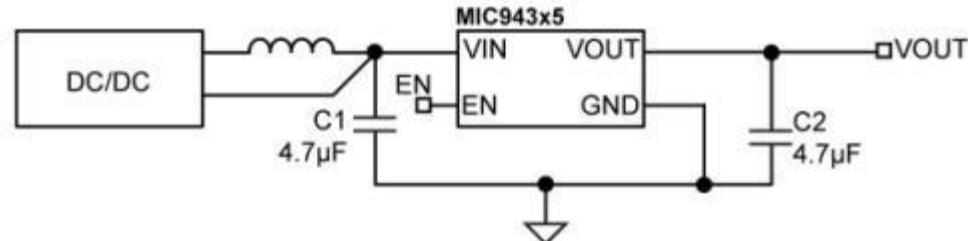
MIC94325/45/55

500mA LDO with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >50dB from 10Hz to 5MHz at 500mA load
- Rated to 500mA output current
- Fixed and adjustable output voltages
- Optional output auto-discharge when disabled
- Current-limit and thermal-limit protected
- 1.6mm x 1.6mm, 6-pin Thin DFN
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

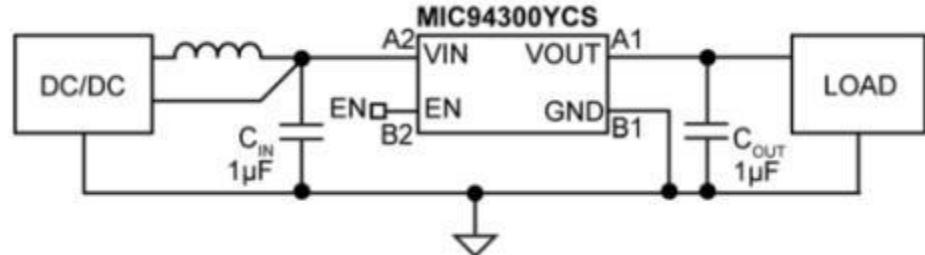
MIC94300

200mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 200mA output current
- Current-limit and thermal-limit protected
- 1.2mm x 1.6mm, 4-pin Thin MLF®
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



[HOME](#)

[<< BACK](#)



MICROCHIP

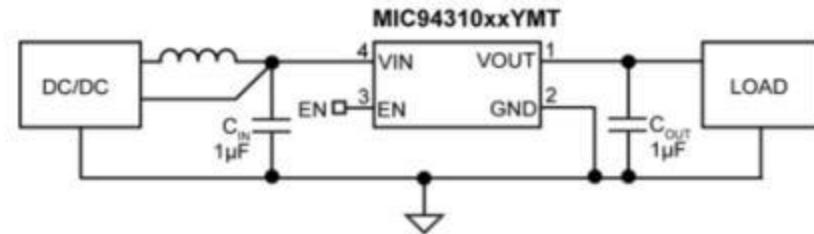
MIC94310

200mA LDO with Ripple Blocker™ Technology

Online
Datasheet

Features:

- NEW WLCSP package available
- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >50dB from 10Hz to 10MHz at 200mA load
- Rated to 200mA output current
- -40°C to +125°C junction temperature range
- Fixed output voltages
- Current-limit and thermal-limit protected
- 1.2mm x 1.6mm, 4-pin Thin DFN
- 5-pin SOT-23
- Logic-controlled enable pin



[HOME](#)

[<< BACK](#)



MICROCHIP

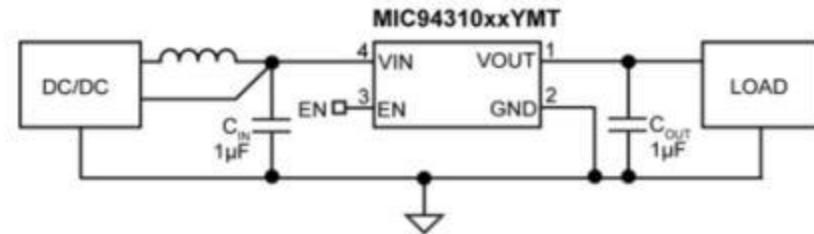
MIC94310

200mA LDO with Ripple Blocker™ Technology

Online
Datasheet

Features:

- NEW WLCSP package available
- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >50dB from 10Hz to 10MHz at 200mA load
- Rated to 200mA output current
- -40°C to +125°C junction temperature range
- Fixed output voltages
- Current-limit and thermal-limit protected
- 1.2mm x 1.6mm, 4-pin Thin DFN
- 5-pin SOT-23
- Logic-controlled enable pin



[HOME](#)

[<< BACK](#)



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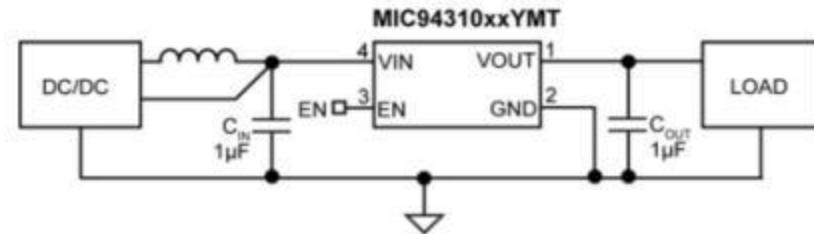
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[HOME](#)

[<< BACK](#)



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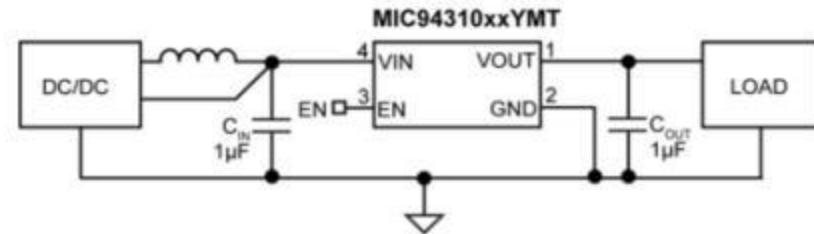
MIC94310

200mA LDO with Ripple Blocker™ Technology

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[HOME](#)

[<< BACK](#)



MICROCHIP

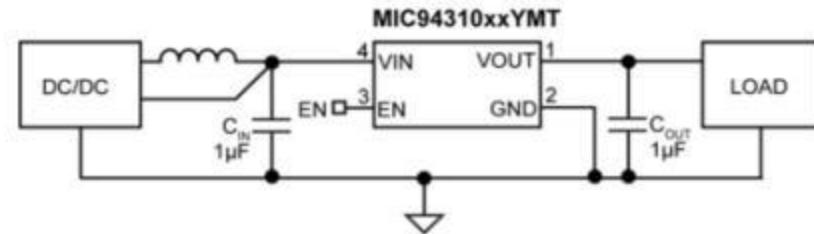
MIC94310

200mA LDO with Ripple Blocker™ Technology

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- Current-limit and thermal-limit protected
- 1.2mm x 1.6mm, 4-pin Thin DFN
- 5-pin SOT-23
- Logic-controlled enable pin



[HOME](#)

[<< BACK](#)



MICROCHIP

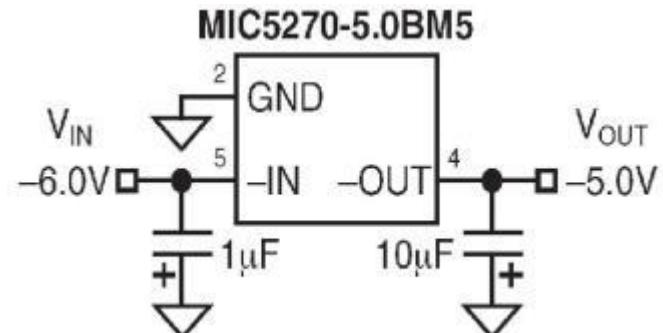
MIC5270

µCap Negative Low-Dropout Regulator

Online
Datasheet

Features:

- Stable with ceramic or tantalum capacitor
- Low dropout voltage: 500mV at 100mA
- Tight initial accuracy: $\pm 2\%$
- Tight load and line regulation
- Low ground current: 35 μ A at load equals 100 μ A
- Thermal shutdown
- Current limiting
- IttyBitty® SOT-23-5 packaging



HOME

<< BACK



MICROCHIP

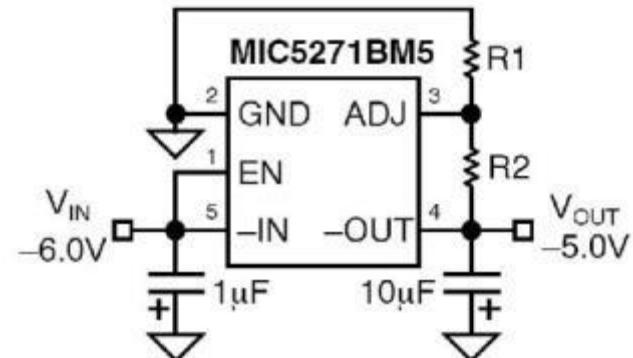
MIC5271

µCap Negative Low-Dropout Regulator

Online
Datasheet

Features:

- Stable with ceramic or tantalum capacitor
- Positive and negative enable thresholds
- Low dropout voltage: 500mV at 100mA
- Low ground current: 35µA at load equals 100µA
- Tight initial accuracy: $\pm 2\%$
- Tight load and line regulation
- Thermal shutdown
- Current limiting
- IttyBitty® SOT-23-5 packaging
- Zero off-mode current



HOME

<< BACK



MICROCHIP

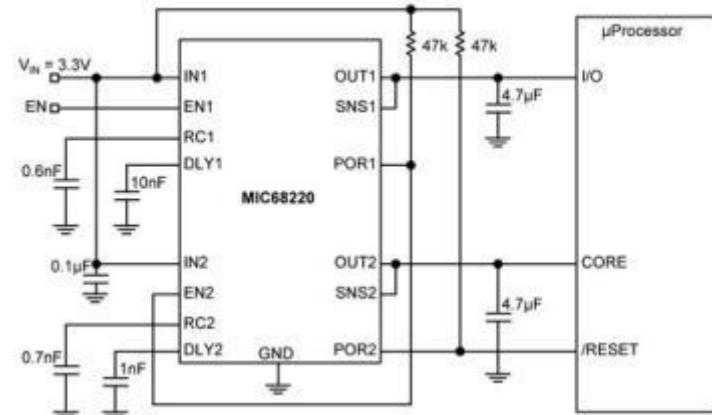
MIC68220

Dual 2A LDO Regulator

Online
Datasheet

Features:

- Stable with 4.7 μ F ceramic output capacitor
- Input voltage range: 1.65V to 5.5V
- $\pm 1.0\%$ initial output tolerance
- 2A maximum output current - peak start up
- 1A Continuous operating current
- Programmable Ramp Control™ for in-rush current limiting and slew rate control of the output voltage on Turn-On and Turn-Off
- Power-on Reset (POR) supervisor with programmable delay time
- Single Master can control multiple Slave regulators with tracking output voltages
- Tiny 4mm x 5mm MLF® package
- Maximum dropout ($V_{IN} - V_{OUT}$) of 500mV over temperature at 1A output current
- Fixed and adjustable output voltages
- Thermal shutdown and current limit protection



[HOME](#)

[<< BACK](#)



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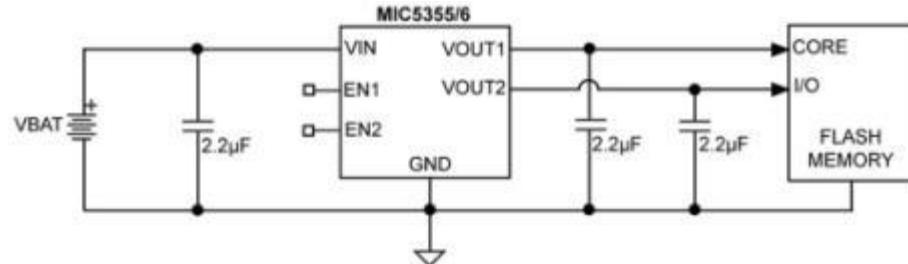
MIC5355/6

Dual 500mA μ Cap Low Dropout Micropower LDO

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- 2% initial output accuracy
- Wide output voltage range: 1.0V to 3.3V
- Low quiescent current: 38 μ A per output
- Very low quiescent current in shutdown: <1 μ A typical
- μ Cap stable with 2.2 μ F ceramic capacitor
- Low dropout voltage: 350mV at 500mA
- Excellent load/line transient response
- Independent logic controlled enable pins
- Output discharge circuit (MIC5356)
- Current and thermal limit protection
- Power 8-pin ePad MSOP package



[HOME](#)

[<< BACK](#)



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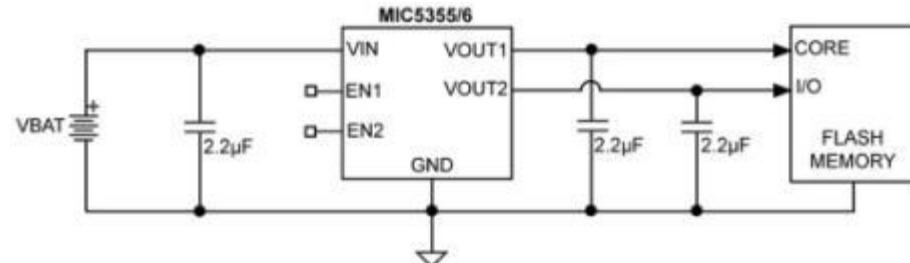
MIC5356

Dual 500mA μ Cap Low Dropout Micropower LDO

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- 2% initial output accuracy
- Wide output voltage range: 1.0V to 3.3V
- Low quiescent current: 38 μ A per output
- Very low quiescent current in shutdown: <1 μ A typical
- μ Cap stable with 2.2 μ F ceramic capacitor
- Low dropout voltage: 350mV at 500mA
- Excellent load/line transient response
- Independent logic controlled enable pins
- Output discharge circuit (MIC5356)
- Current and thermal limit protection
- Power 8-pin ePad MSOP package



[HOME](#)

[<< BACK](#)



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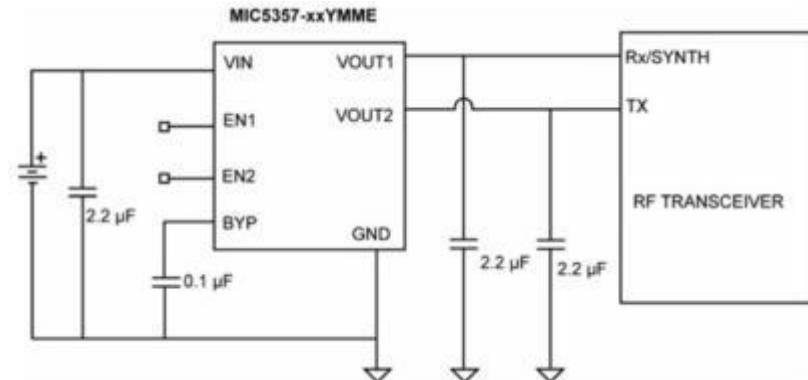
MIC5357

High Performance Low Noise Dual 500mA ULDO

Online
Datasheet

Features:

- 2.6V to 5.5V input voltage range
- Ultra-low output noise: $51\mu\text{V}_{\text{rms}}$
- $\pm 2\%$ initial output accuracy
- Small 8-pin ePad MSOP package
- Excellent Load/Line transient response
- Ultra-low dropout voltage: 130mV @ 500mA
- Fast start up time: 38 μs
- μCap stable with 2.2 μF ceramic capacitors
- Thermal shutdown protection
- Low quiescent current: 160 μA with both outputs at maximum load



[HOME](#)

[<< BACK](#)



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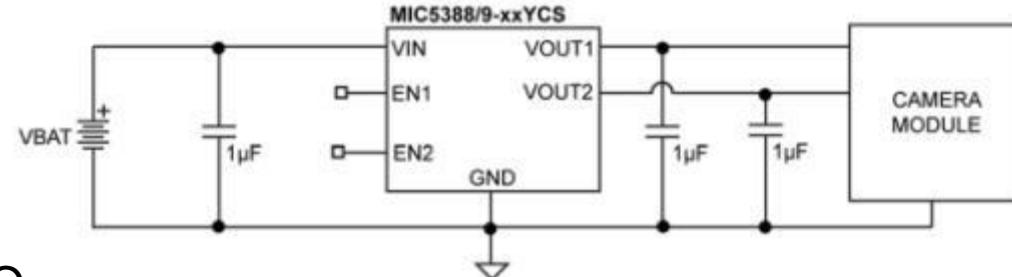
MIC5388/9

Dual 200mA Peak LDO in Wafer Level Chip Scale Package

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- Independent enable pins
- High output accuracy: $\pm 2\%$
- Low quiescent current: 32 μ A per LDO
- Stable with 1 μ F ceramic output capacitors
- Two 200mA peak output current LDOs
- Low dropout voltage: 175mV at 150mA
- Output discharge circuit (MIC5389)
- Thermal shutdown protection
- Current limit protection
- 6-bump 1.5mm x 1.0mm WLCSP package



[HOME](#)

[<< BACK](#)



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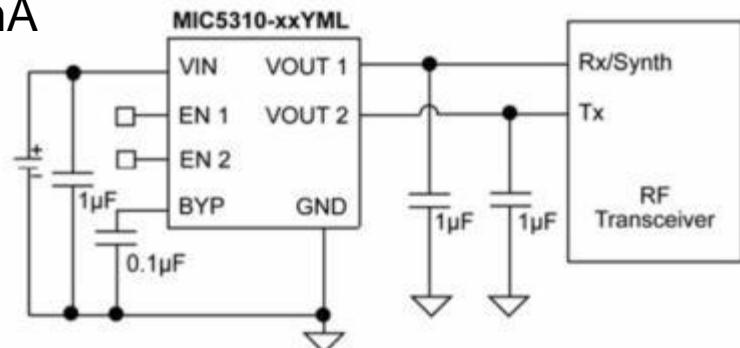
MIC5310

Dual 150mA μ Cap in 2mm x 2mm MLF®

Online
Datasheet

Features:

- Ultra-low dropout voltage ULDO 35mV @ 150mA
- High PSRR: >70dB @ 1KHz
- Ultra-low output noise: 30 μ V_{rms}
- $\pm 2\%$ initial output accuracy
- 2.3V to 5.5V input voltage range
- Tiny 8-pin 2mm x 2mm MLF® leadless package
- Excellent load/line transient response
- Fast start-up time: 30 μ s
- μ Cap stable with 1 μ F ceramic capacitor
- Thermal shutdown protection
- Low quiescent current: 75 μ A per output
- Current limit protection



HOME

<< BACK



MICROCHIP

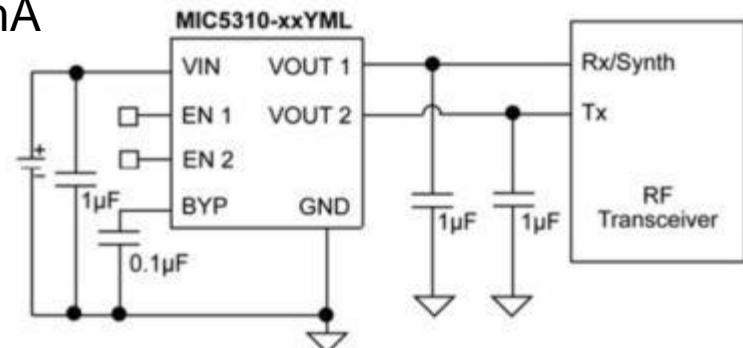
MIC5310

Dual 150mA μ Cap in 2mm x 2mm MLF®

Online
Datasheet

Features:

- Ultra-low dropout voltage ULDO 35mV @ 150mA
- High PSRR: >70dB @ 1KHz
- Ultra-low output noise: 30 μ V_{rms}
- $\pm 2\%$ initial output accuracy
- 2.3V to 5.5V input voltage range
- Tiny 8-pin 2mm x 2mm MLF® leadless package
- Excellent load/line transient response
- Fast start-up time: 30 μ s
- μ Cap stable with 1 μ F ceramic capacitor
- Thermal shutdown protection
- Low quiescent current: 75 μ A per output
- Current limit protection



HOME

<< BACK



MICROCHIP

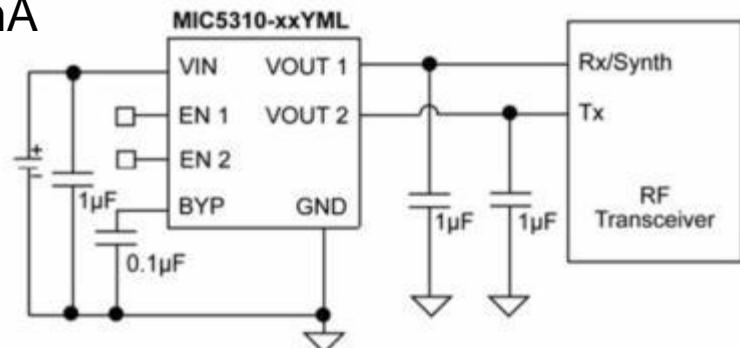
MIC5310

Dual 150mA μ Cap in 2mm x 2mm MLF®

Online
Datasheet

Features:

- Ultra-low dropout voltage ULDO 35mV @ 150mA
- High PSRR: >70dB @ 1KHz
- Ultra-low output noise: 30 μ V_{rms}
- $\pm 2\%$ initial output accuracy
- 2.3V to 5.5V input voltage range
- Tiny 8-pin 2mm x 2mm MLF® leadless package
- Excellent load/line transient response
- Fast start-up time: 30 μ s
- μ Cap stable with 1 μ F ceramic capacitor
- Thermal shutdown protection
- Low quiescent current: 75 μ A per output
- Current limit protection



HOME

<< BACK



MICROCHIP

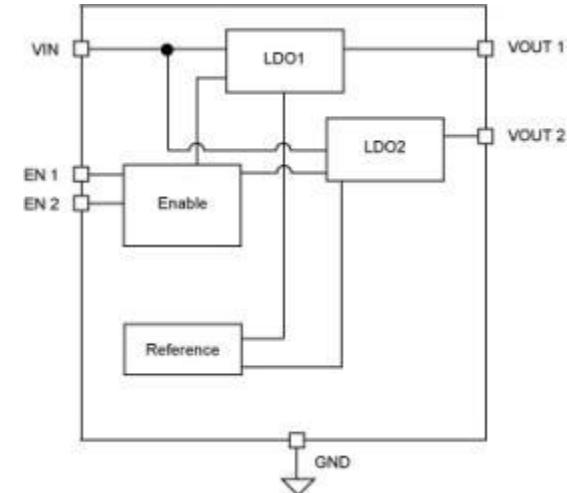
MIC5320

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Independent enable pins
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Low cost TSOT-23-6 package
- PSRR: >65dB on each LDO
- 150mA output current per LDO
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 85 μ A per output
- Fast turn-on time: 30 μ s
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

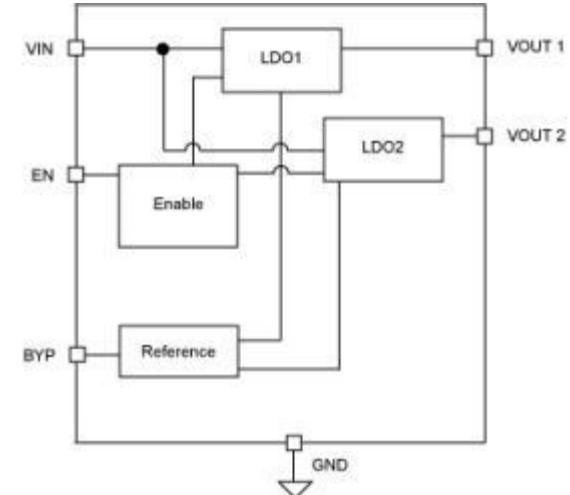
MIC5321

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Tiny 6-pin 1.6mm x 1.6mm MLF® leadless package
- Low cost TSOT-23-6 package
- Bypass pin for improved noise performance
- High PSRR: >75dB on each LDO
- Ultra low noise output: > 30 μ V_{rms}
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A per output
- Fast turn-on time: 45 μ s
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

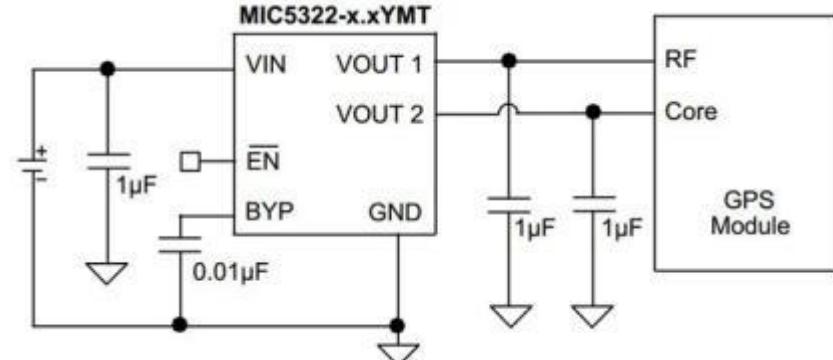
MIC5322

Dual, High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A
- Fast turn-on time: 45 μ s
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Bypass pin for improved noise performance
- High PSRR: >75dB on each LDO
- Ultra-low noise output: > 30 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

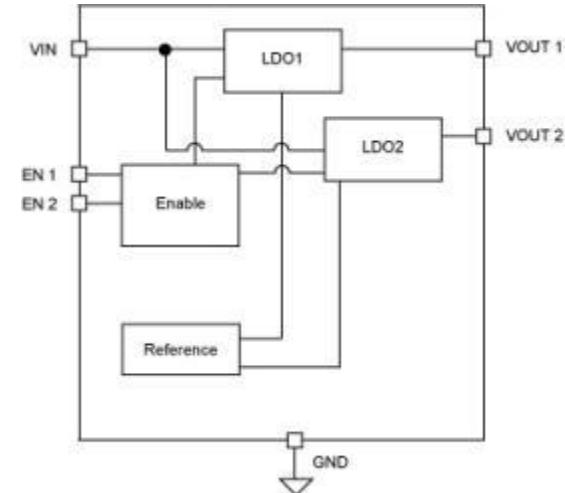
MIC5320

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Independent enable pins
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Low cost TSOT-23-6 package
- PSRR: >65dB on each LDO
- 150mA output current per LDO
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 85 μ A per output
- Fast turn-on time: 30 μ s
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

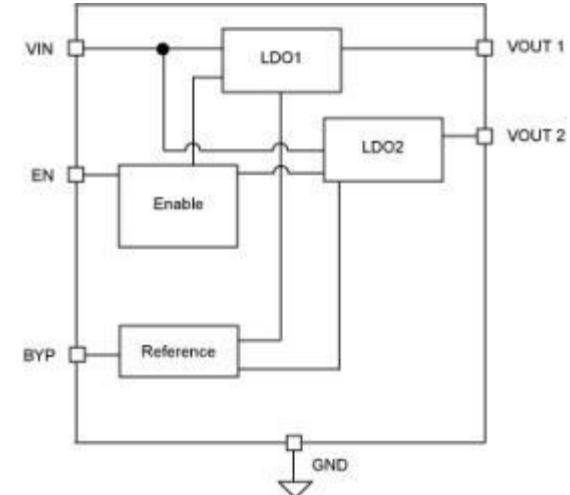
MIC5321

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Tiny 6-pin 1.6mm x 1.6mm MLF® leadless package
- Low cost TSOT-23-6 package
- Bypass pin for improved noise performance
- High PSRR: >75dB on each LDO
- Ultra low noise output: > 30 μ V_{rms}
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A per output
- Fast turn-on time: 45 μ s
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

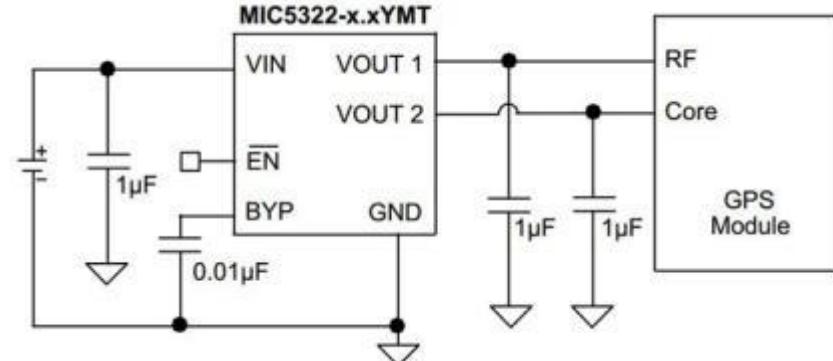
MIC5322

Dual, High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A
- Fast turn-on time: 45 μ s
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Bypass pin for improved noise performance
- High PSRR: >75dB on each LDO
- Ultra-low noise output: > 30 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

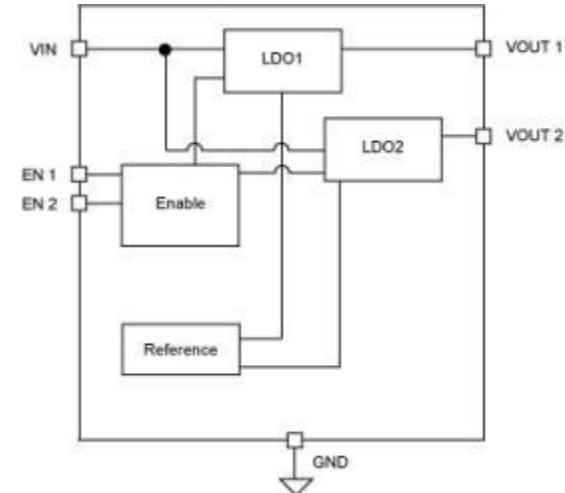
MIC5320

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

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- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Low cost TSOT-23-6 package
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- 150mA output current per LDO
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- Low quiescent current: 85 μ A per output
- Fast turn-on time: 30 μ s
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

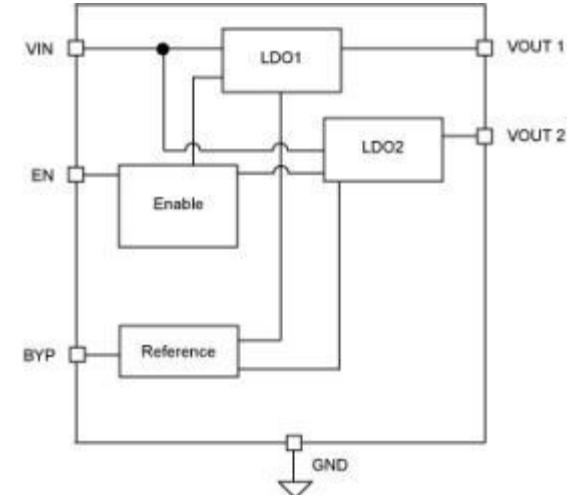
MIC5321

Dual High Performance 150mA μ Cap ULDO

Online
Datasheet

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- Ultra-low dropout voltage ULDO: 35mV @ 150mA
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- Ultra low noise output: > 30 μ V_{rms}
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A per output
- Fast turn-on time: 45 μ s
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

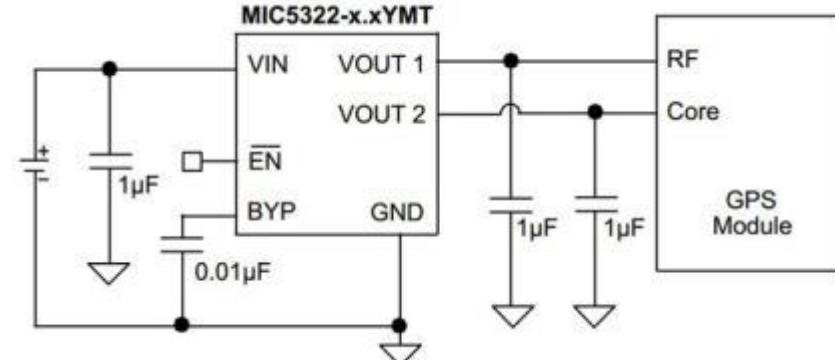
MIC5322

Dual, High Performance 150mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Dual 150mA outputs
- μ Cap stable with 1 μ F ceramic capacitor
- Low quiescent current: 150 μ A
- Fast turn-on time: 45 μ s
- Ultra-low dropout voltage ULDO: 35mV @ 150mA
- Tiny 6-pin 1.6mm x 1.6mm Thin MLF® leadless package
- Bypass pin for improved noise performance
- High PSRR: >75dB on each LDO
- Ultra-low noise output: > 30 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

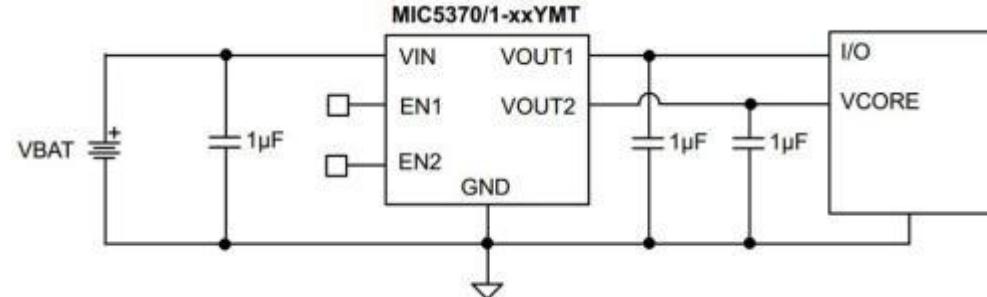
MIC5370/1

High-Performance Dual 150mA LDO 1.6mm x 1.6mm Thin MLF®

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- Two 150mA output current LDOs
- High output accuracy
 - $\pm 2\%$ initial accuracy
- Low quiescent current 32 μ A per LDO
- Stable with 1 μ F ceramic output capacitors
- Independent enable pins
- Low dropout voltage: 155mV at 150mA
- Thermal shutdown protection
- Current limit protection
- Output discharge circuit (MIC5371)
- 6-pin 1.6mm x 1.6mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

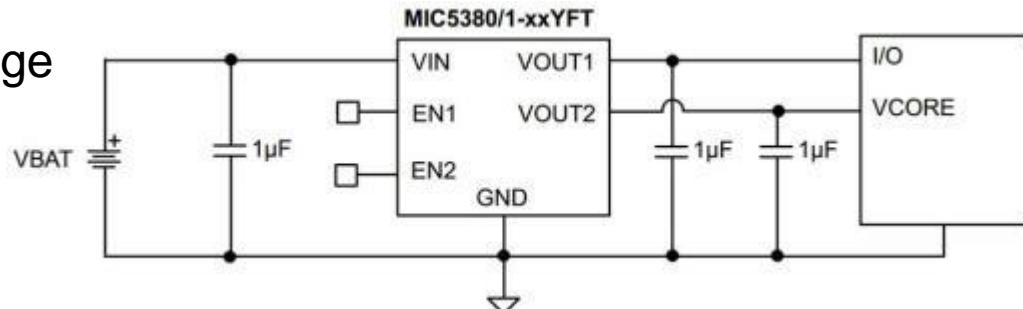
MIC5380/1

High Performance Dual 150mA LDO 1mm x 1mm Thin MLF®

Online
Datasheet

Features:

- 6-pin 1mm x 1mm Thin MLF® package
- 2.5V to 5.5V input voltage range
- 150mA output current per LDO
- High output accuracy $\pm 1\%$ typical
- Low quiescent current 32 μ A per LDO
- Stable with 0402 1 μ F ceramic output capacitors
- Low dropout voltage: 155mV at 150mA
- Output discharge circuit (MIC5381)
- Independent enable pins
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

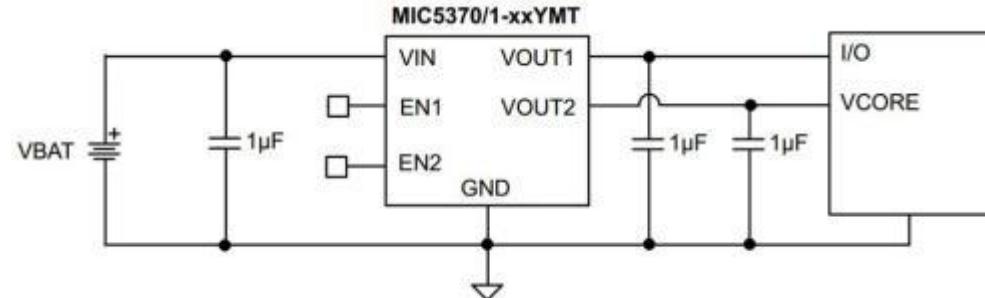
MIC5370/1

High-Performance Dual 150mA LDO 1.6mm x 1.6mm Thin MLF®

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- Two 150mA output current LDOs
- High output accuracy
 - $\pm 2\%$ initial accuracy
- Low quiescent current 32 μ A per LDO
- Stable with 1 μ F ceramic output capacitors
- Independent enable pins
- Low dropout voltage: 155mV at 150mA
- Thermal shutdown protection
- Current limit protection
- Output discharge circuit (MIC5371)
- 6-pin 1.6mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

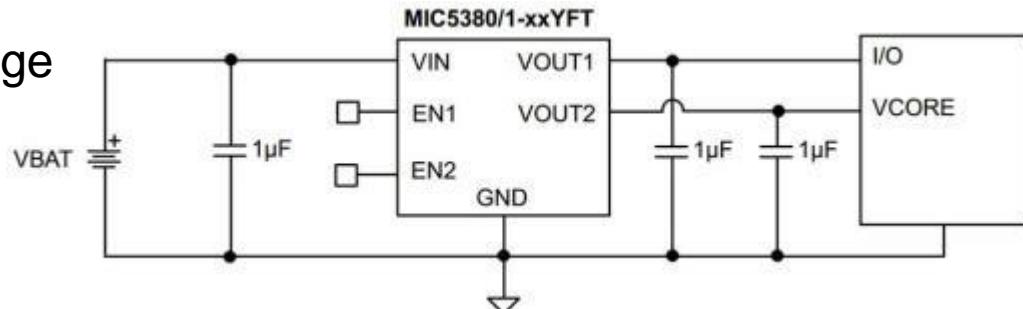
MIC5380/1

High Performance Dual 150mA LDO 1mm x 1mm Thin MLF®

Online
Datasheet

Features:

- 6-pin 1mm x 1mm Thin MLF® package
- 2.5V to 5.5V input voltage range
- 150mA output current per LDO
- High output accuracy $\pm 1\%$ typical
- Low quiescent current 32 μ A per LDO
- Stable with 0402 1 μ F ceramic output capacitors
- Low dropout voltage: 155mV at 150mA
- Output discharge circuit (MIC5381)
- Independent enable pins
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

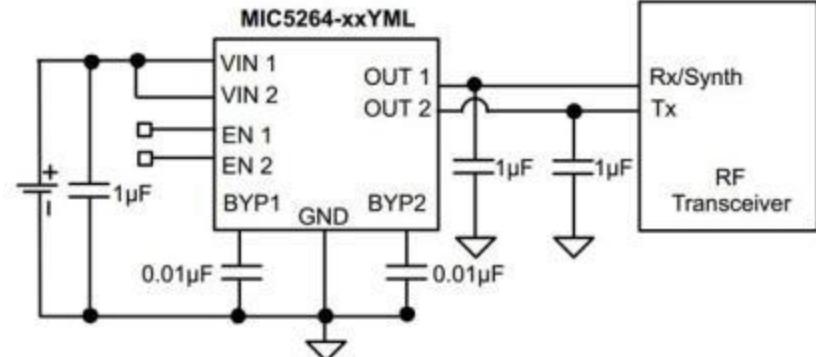
MIC5264

150mA μ Cap Dual LDO Regulator

Online
Datasheet

Features:

- 2.7V to 5.5V supply voltage
- Low 90 μ A quiescent current per LDO
- Tiny 2.5mm x 2.5mm MLF® package
- Low noise: 57 μ V_{rms}
- High PSRR: 70dB at 1kHz
- Low dropout voltage: 210mV at 150mA
- Stable with ceramic output capacitors
- Independent enable pins
- Fast transient response
- Active shutdown on both outputs



HOME

<< BACK



MICROCHIP

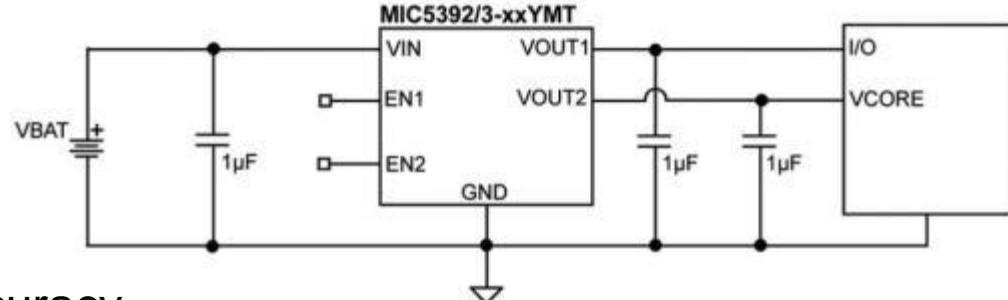
MIC5392/3

High-Performance Dual 150mA LDO

Online
Datashee

Features:

- 2.5V to 5.5V input voltage range
- Two 150mA output current LDOs
- Independent enable pins
- High output accuracy: $\pm 2\%$ initial accuracy
- Low quiescent current (32 μ A per LDO)
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage (155mV at 150mA)
- Thermal-shutdown protection
- Current-limit protection
- Internal 25 Ω output discharge circuit (MIC5393)
- Tiny 6-pin 1.2mm x 1.2mm Thin DFN package



[HOME](#)

[<< BACK](#)



MICROCHIP

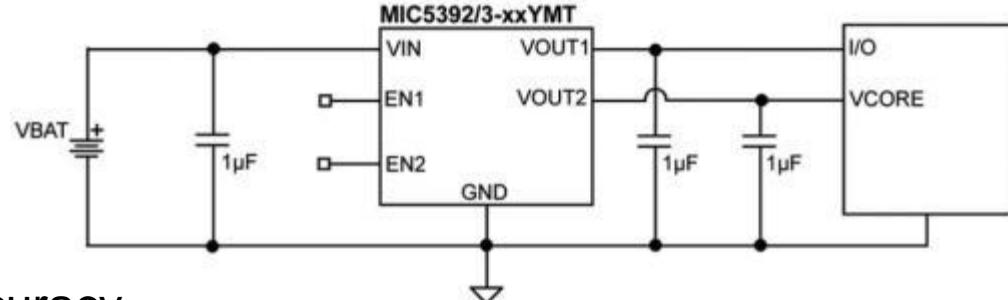
MIC5392/3

High-Performance Dual 150mA LDO

Online
Datashee

Features:

- 2.5V to 5.5V input voltage range
- Two 150mA output current LDOs
- Independent enable pins
- High output accuracy: $\pm 2\%$ initial accuracy
- Low quiescent current (32 μ A per LDO)
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage (155mV at 150mA)
- Thermal-shutdown protection
- Current-limit protection
- Internal 25 Ω output discharge circuit (MIC5393)
- Tiny 6-pin 1.2mm x 1.2mm Thin DFN package



[HOME](#)

[<< BACK](#)



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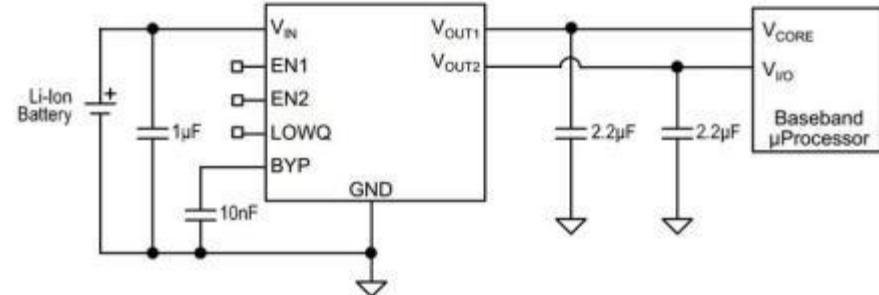
MIC5311

LowQ® Dual µCap LDO in 3mm x 3mm MLF®

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- LowQ® Mode
 - 7µA total quiescent current
 - 10mA output current capable LowQ® mode
 - Logic level control with external pin
- Stable with ceramic output capacitor
- 2 LDO outputs: 300mA each
- Tiny 10-pin 3mm x 3mm MLF® package
- Low dropout voltage of 60mV @ 150mA
- Ultra-low quiescent current of 28µA total in full current mode
- High output accuracy
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



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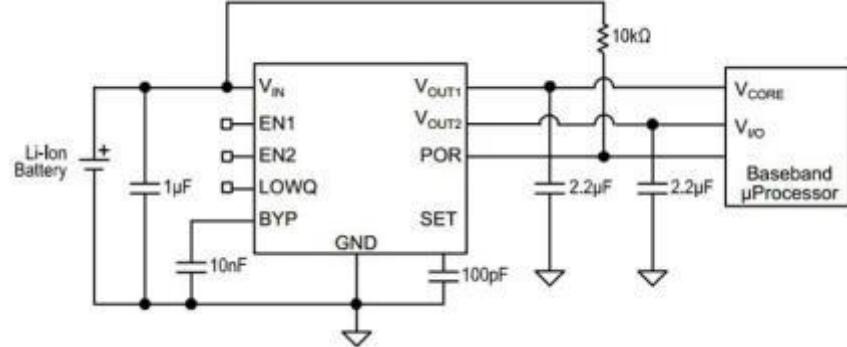
MIC5312

LowQ® Dual µCap LDO w/Integrated POR in 3mm x 3mm MLF®

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- LowQ® Mode
 - 7µA total quiescent current
 - 10mA output current capable LowQ® mode
 - Logic level control with external pin
- Stable with ceramic output capacitor
- 2 LDO outputs: 300mA each
- Integrated power-on reset (POR) with adjustable delay time
- Tiny 3mm x 3mm MLF®-10 package
- Low dropout voltage of 60mV @ 150mA
- Ultra-low quiescent current of 28µA total in full current mode
- High output accuracy
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protections



HOME

<< BACK



MICROCHIP

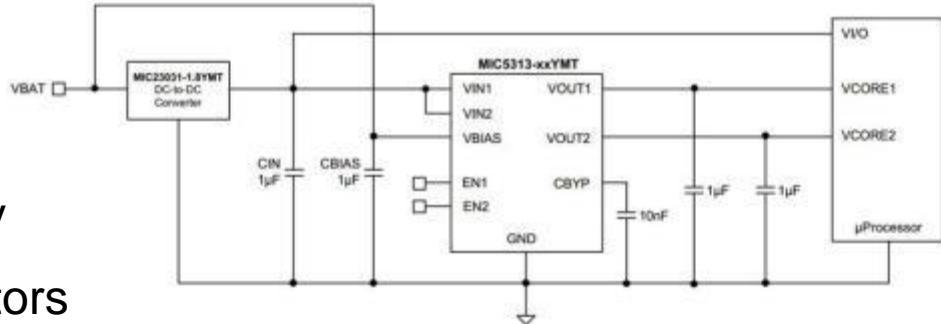
MIC5313

Low Voltage Dual 300mA LDO

Online
Datasheet

Features:

- 300mA output current for each LDO
- Very fast transient response
- Low output voltage range: 0.8V to 2.0V
- Stable with 1 μ F ceramic output capacitors
- Dual low voltage regulator inputs: 1.7V to 5.5V
- Ultra-low dropout voltage of 85mV @ 300mA
- Thermal shutdown and current limit protection
- Tiny 10-pin 2mm x 2mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

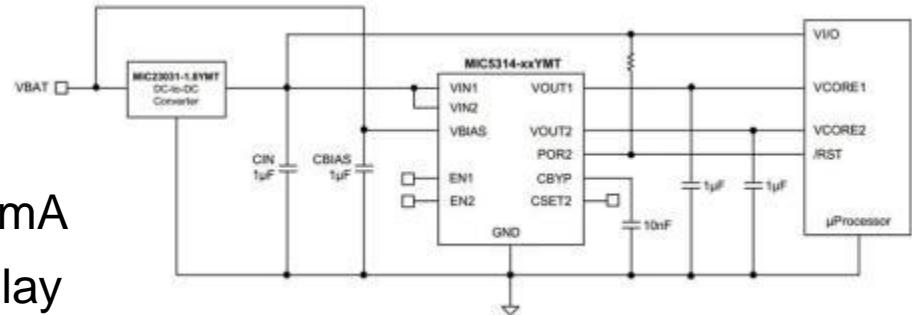
MIC5314

Low Voltage Dual 300mA LDO with Power on Reset

Online
Datasheet

Features:

- 300mA output current for each LDO
- Low output voltage range: 0.8V to 2.0V
- Ultra-low dropout voltage of 85mV @ 300mA
- Power on Reset output with adjustable delay
- Stable with 1 μ F ceramic output capacitors
- Very fast transient response
- Thermal shutdown and current limit protection
- Tiny 12-pin 2.5mm x 2.5mm Thin MLF® package
- Dual low voltage regulator inputs: 1.7V to 5.5V



[HOME](#)

[<< BACK](#)



MICROCHIP

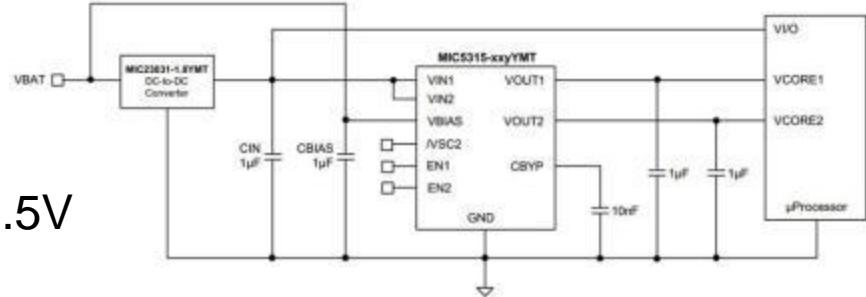
MIC5315

Low Voltage Dual 300mA LDO with Voltage Select

Online
Datasheet

Features:

- 300mA output current for each LDO
- Voltage select function
- Dual low voltage regulator inputs: 1.7V to 5.5V
- Low output voltage range: 0.8V to 2.0V
- Ultra-low dropout voltage of 85mV @ 300mA
- Stable with 1 μ F ceramic output capacitors
- Very fast transient response
- Thermal shutdown and current limit protection
- Tiny 10-pin 2mm x 2mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

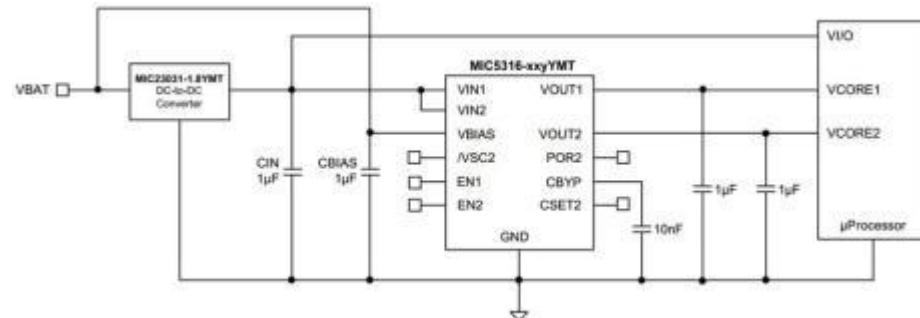
MIC5316

Low Voltage Dual 300mA LDO with Power on Reset and Voltage Select

Online
Datasheet

Features:

- 300mA output current for each LDO
- Voltage select function
- Low output voltage range: 0.8V to 2.0V
- Very fast transient response
- Dual low voltage regulator inputs: 1.7V to 5.5V
- Ultra-low dropout voltage of 85mV @ 300mA
- Power on Reset output with adjustable delay
- Stable with 1 μ F ceramic output capacitors
- Thermal shutdown and current limit protection
- Tiny 12-pin 2.5mm x 2.5mm Thin MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

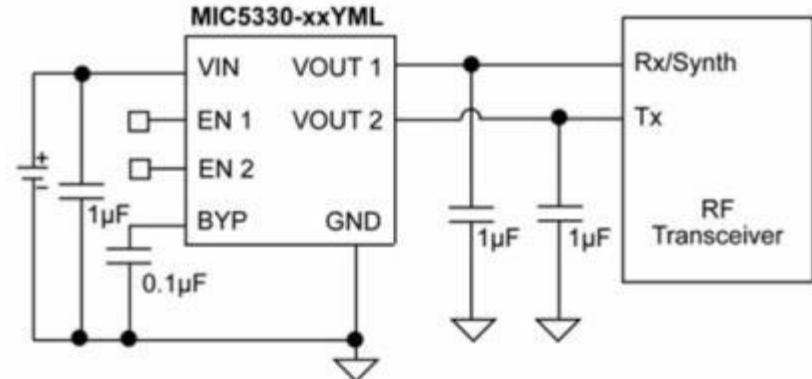
MIC5330

Dual 300mA μ Cap in 2mm x 2mm MLF®

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- High PSRR: >70dB @ 1KHz
- Ultra-low output noise: 30 μ V_{rms}
- $\pm 2\%$ initial output accuracy
- Fast start-up time: 30 μ s
- Tiny 8-pin 2mm x 2mm MLF® leadless package
- Excellent Load/Line transient response
- Ultra-low dropout voltage ULDO 75mV @ 300mA
- 300mA output current per LDO
- Thermal shutdown protection
- Low quiescent current: 75 μ A per output
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

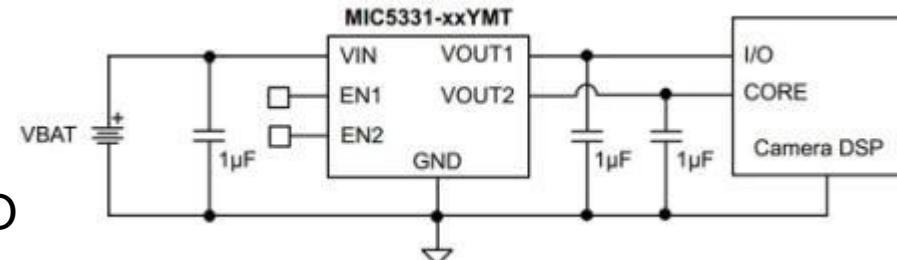
MIC5331

Micro-Power High Performance Dual 300mA ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- 300mA output current per LDO
- Very low quiescent current: 25 μ A per LDO
- High PSRR: >65dB on each LDO
- Stable with 1 μ F ceramic output capacitors
- Tiny 8-pin 2mm x 2mm Thin MLF® package
- Ultra-low dropout voltage: 120mV @ 300mA
- Low output voltage noise: 50 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

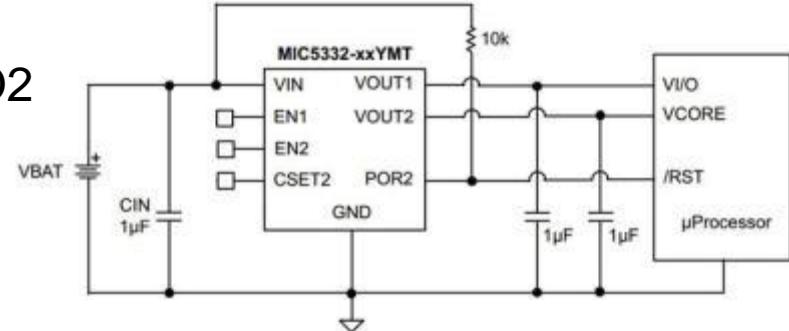
MIC5332

Micro-Power High Performance Dual 300mA ULDO

Online
Datasheet

Features:

- POR output with programmable delay on LDO2
- 300mA output current per LDO
- Very low quiescent current: 25 μ A per LDO
- High PSRR: >65dB on each LDO
- 2.3V to 5.5V input voltage range
- Stable with 1 μ F ceramic output capacitors
- Tiny 8-pin 2mm x 2mm Thin MLF® package
- Ultra-low dropout voltage: 120mV @ 300mA
- Low output voltage noise: 50 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

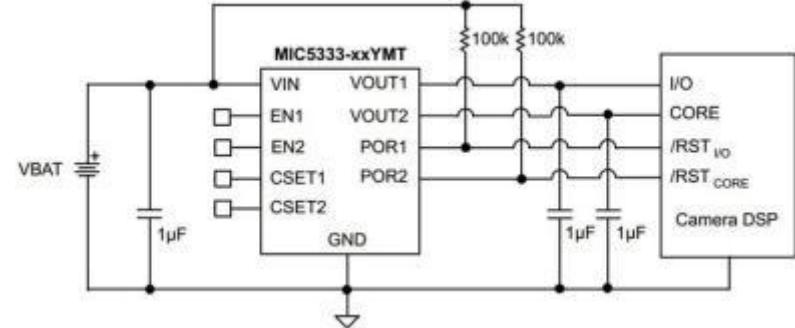
MIC5333

Micro-Power High Performance Dual 300mA ULDO with Dual POR

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- 300mA output current per LDO
- Very low quiescent current: 25 μ A per LDO
- Stable with 1 μ F ceramic output capacitors
- POR output with programmable delay for each LDO
- High PSRR: >65dB on each LDO
- Tiny 10-pin 2.5mm x 2.5mm Thin MLF® package
- Ultra-low dropout voltage: 120mV @ 300mA
- Low output voltage noise: 50 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



HOME

<< BACK



MICROCHIP

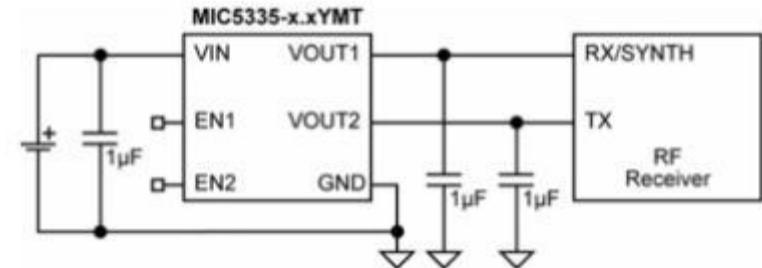
MIC5335

Dual High Performance 300mA μ Cap ULDO

Online
Datasheet

Features:

- 2.3V to 5.5V input voltage range
- Ultra-low dropout voltage: 75mV at 300mA
- Independent enable pins
- Ultra Thin 1.6mm x 1.6mm 6-pin MLF® package
- High PSRR: >65dB
- 300mA output current per LDO
- μ Cap Stable with 1 μ F ceramic capacitor
- Low quiescent current: 90 μ A/LDO
- Fast turn-on time: 30 μ s
- Low output voltage noise: 24 μ V_{rms}
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

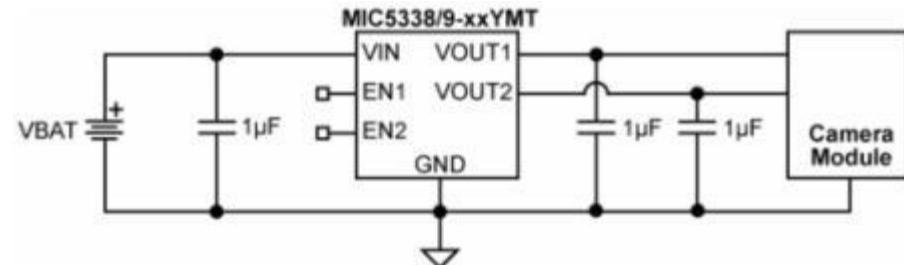
MIC5338/9

Dual 300mA μ Cap LDO in 1.6mm x 1.6mm Thin MLF®

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- Two 300mA outputs
- High output accuracy: 2%
- Low quiescent current: 70 μ A total
- Stable with ceramic output capacitors
- Independent enable pins
- Low dropout voltage: 220mV at 300mA
- Low output noise
- Thermal shutdown protection
- Current limit protection
- Output discharge circuit (MIC5339)
- 6-pin 1.6mm x 1.6mm Thin MLF® package



HOME

<< BACK



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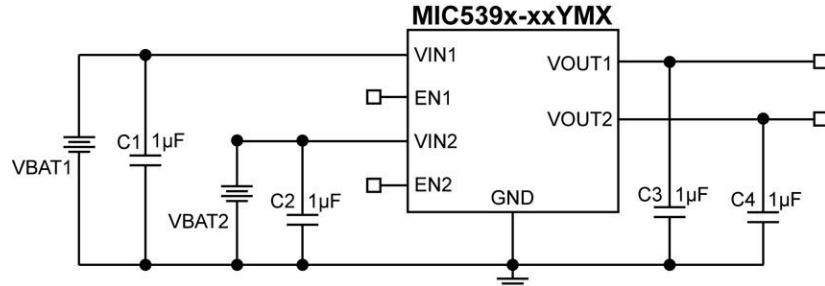
MIC5396/7/8/9

Low-Power Dual 300mA LDO in 1.2mm x 1.6mm Extra Thin DFN

Online
Datasheet

Features:

- 2.5V to 5.5V input voltage range
- Independent power inputs
- Output voltage range from 1V to 3.3V
- Two 300mA outputs
- High output accuracy ($\pm 2\%$)
- Low quiescent current: 37 μ A typical/LDO
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage (160mV at 300mA)
- Internal enable pull-down (MIC5398, MIC5399)
- Output discharge circuit (MIC5397, MIC5399)
- Thermal-shutdown protection
- Current-limit protection
- 8-pin 1.2mm x 1.6mm Extra Thin DFN package



[HOME](#)

[<< BACK](#)



MICROCHIP

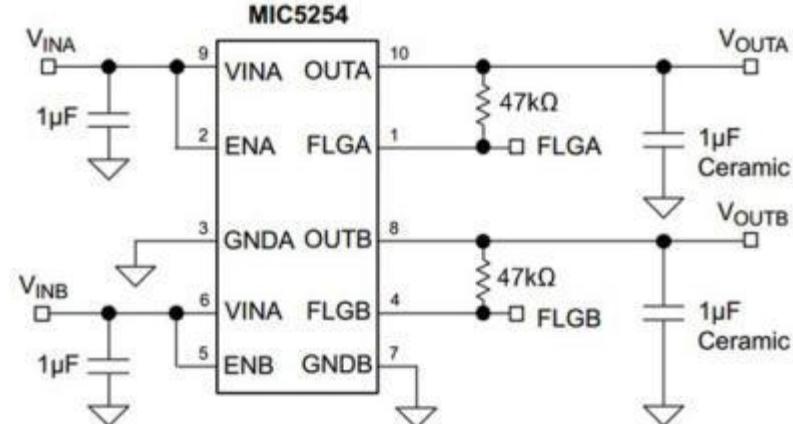
MIC5254

Dual 150mA μ Cap LDO with Error Flag Outputs

Online
Datasheet

Features:

- Input voltage range: 2.7V to 6.0V
- Dual, independent 150mA LDOs
- Error flags indicate fault condition
- Stable with ceramic output capacitor
- Ultra-low dropout: 135mV @ 150mA
- High output accuracy:
 - 1.0% initial accuracy
 - 2.0% over temperature
- Low quiescent current: 90 μ A each LDO
- Tight load and line regulation
- Thermal shutdown and current limit protection
- Zero off-mode current
- TTL logic-controlled enable input
- MSOP-10 package



[HOME](#)

[<< BACK](#)



MICROCHIP

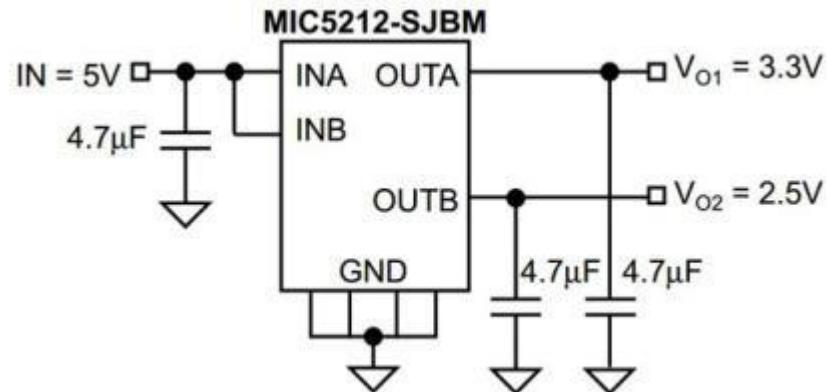
MIC5212

Dual 500mA LDO

Online
Datasheet

Features:

- Fused lead frame SOIC-8
- Up to 500mA per regulator output
- Low quiescent current
- Low dropout voltage
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection



HOME

<< BACK



MICROCHIP

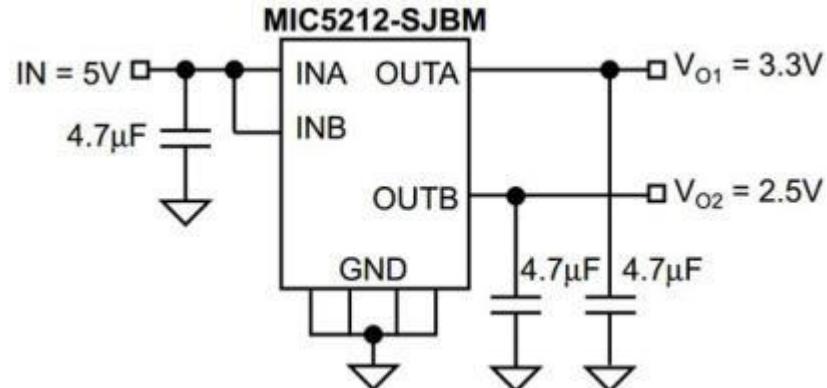
MIC5212

Dual 500mA LDO

Online
Datasheet

Features:

- Fused lead frame SOIC-8
- Up to 500mA per regulator output
- Low quiescent current
- Low dropout voltage
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection



HOME

<< BACK



MICROCHIP

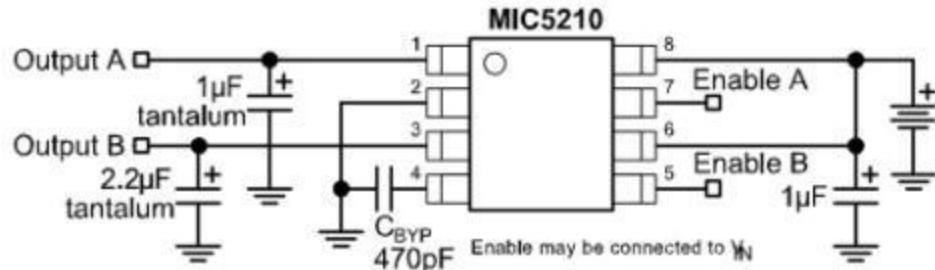
MIC5210

Dual 150mA LDO

Online
Datasheet

Features:

- Micrel Mini 8®; MSOP package
- Up to 150mA per regulator output
- Low quiescent current
- Low dropout voltage
- Wide selection of output voltages
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled electronic enable



HOME

<< BACK



MICROCHIP

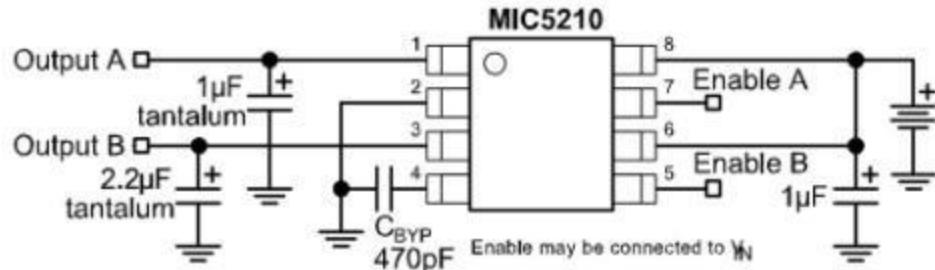
MIC5210

Dual 150mA LDO

Online
Datasheet

Features:

- Micrel Mini 8®; MSOP package
- Up to 150mA per regulator output
- Low quiescent current
- Low dropout voltage
- Wide selection of output voltages
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled electronic enable



HOME

<< BACK



MICROCHIP

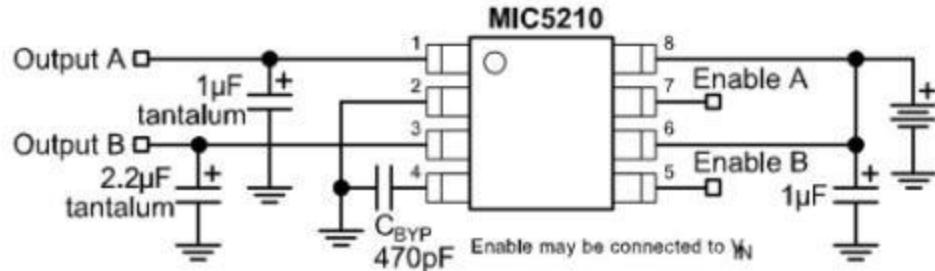
MIC5210

Dual 150mA LDO

Online
Datasheet

Features:

- Micrel Mini 8®; MSOP package
- Up to 150mA per regulator output
- Low quiescent current
- Low dropout voltage
- Wide selection of output voltages
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled electronic enable



HOME

<< BACK



MICROCHIP

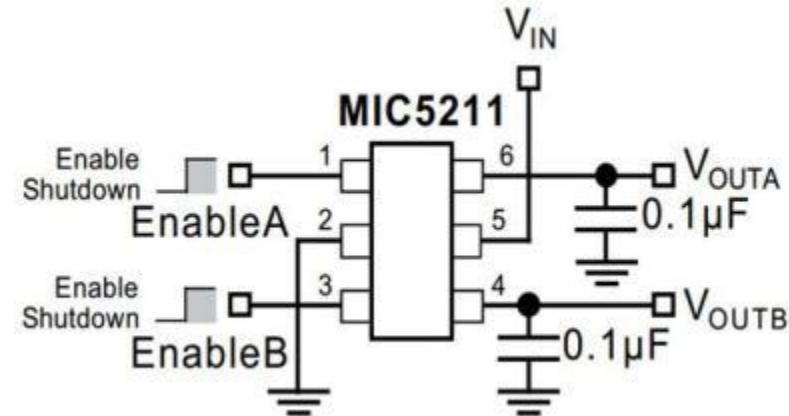
MIC5211

Dual μ Cap 80mA LDO

Online
Datasheet

Features:

- Stable with low-value ceramic or tantalum capacitors
- Independent logic controls
- Low quiescent current
- Low dropout voltage
- Mixed voltages available
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Dual regulator in tiny SOT-23 package
- 2.5V to 16V input range



[HOME](#)

[<< BACK](#)



MICROCHIP

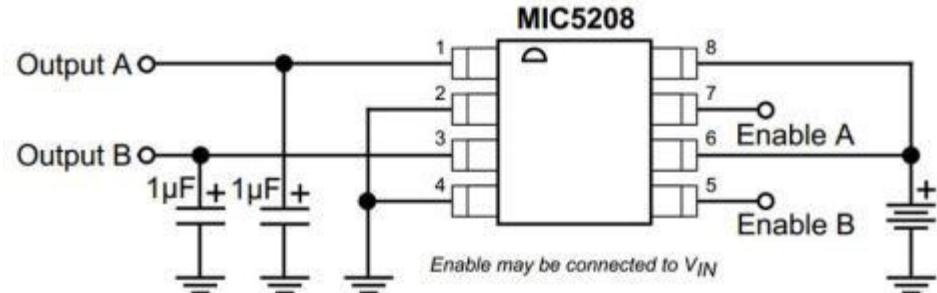
MIC5208

Dual 50mA LDO

Online
Datasheet

Features:

- Micrel Mini 8® MSOP package
- Guaranteed 50mA output
- Low quiescent current
- Low dropout voltage
- Wide selection of output voltages
- Tight load and line regulation
- Low temperature coefficient
- Current and thermal limiting
- Reversed input polarity protection
- Zero off-mode current
- Logic-controlled electronic enable



HOME

<< BACK



MICROCHIP

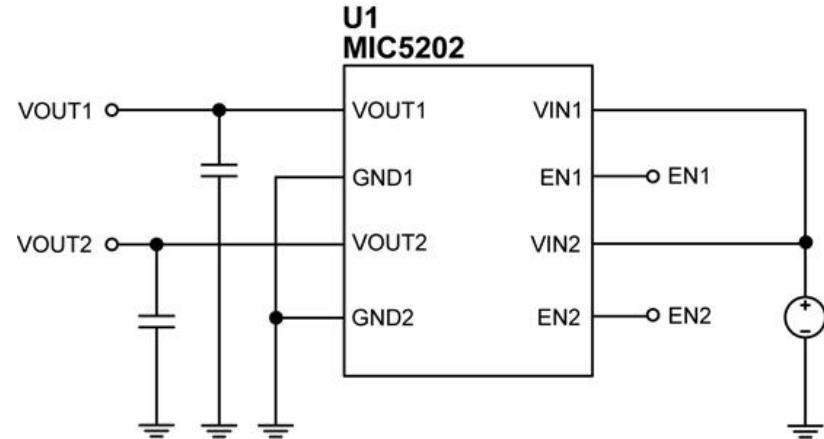
MIC5202

Dual 100mA LDO

Online
Datasheet

Features:

- High output voltage accuracy
- Variety of output voltages
- Up to 100mA of continuous output current
- Low ground current
- Low dropout voltage
- Excellent line and load regulations
- Extremely low temperature coefficient
- Current and thermal limit protections
- Reverse-battery protection
- Zero off-mode current
- Logic-controlled electronic shutdown
- 8-pin SOIC package



HOME

<< BACK



MICROCHIP

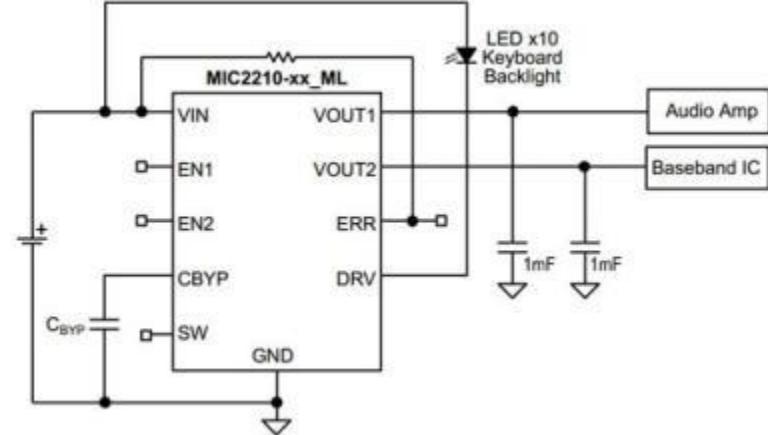
MIC2210

Dual μ Cap LDO with Open-Drain Driver

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 2 LDO outputs
- Output 1: 150mA output current
- Output 2: 300mA output current
- 1 Open-drain driver
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48 μ A
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- Tiny 10-pin 3mm x 3mm MLF® package



<< BACK



MICROCHIP

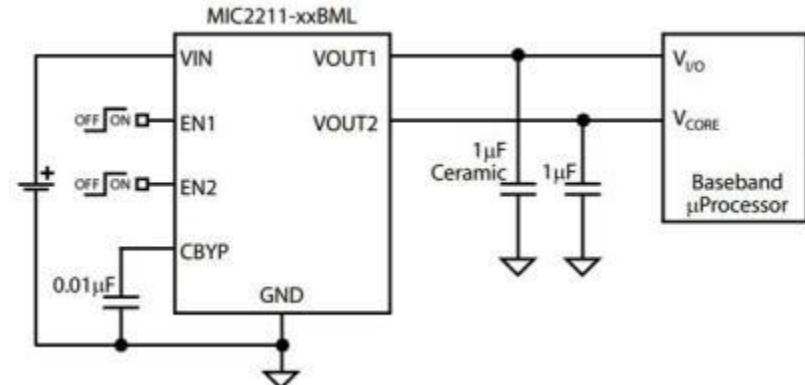
MIC2211

Dual µCap LDO in 3mm x 3mm MLF®

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 2 LDO outputs
 - Output 1: 150mA output current
 - Output 2: 300mA output current
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48µA total (24µA/LDO)
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- Tiny 10-pin 3mm x 3mm MLF® package



HOME

<< BACK



MICROCHIP

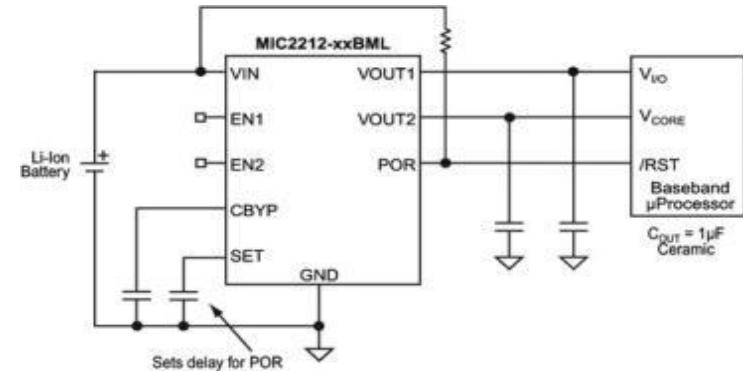
MIC2212

Dual µCap LDO and Power-On Reset

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 2 LDO outputs
 - Output 1: 150mA output current
 - Output 2: 300mA output current
- Power-on reset function with adjustable delay time
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48µA
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- Tiny 10-pin 3mm x 3mm MLF® package



HOME

<< BACK



MICROCHIP

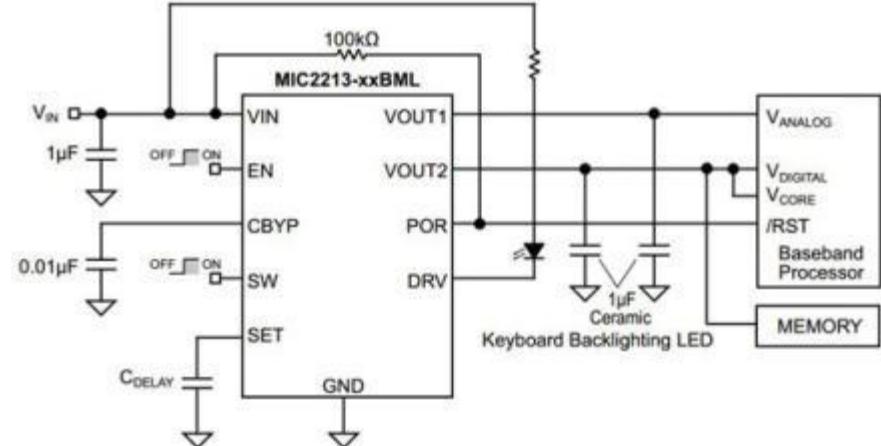
MIC2213

Sequenced Portable Power Management IC

Online
Datasheet

Features:

- 2 LDO outputs
 - Output 1: 150mA output current
 - Output 2: 300mA output current
- 1 Open-drain driver
- Sequencing between outputs 1 and 2
- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- Power-on reset function with adjustable delay time
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48 μ A
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Tiny 3mm x 3mm MLF®-10 package



HOME

<< BACK



MICROCHIP

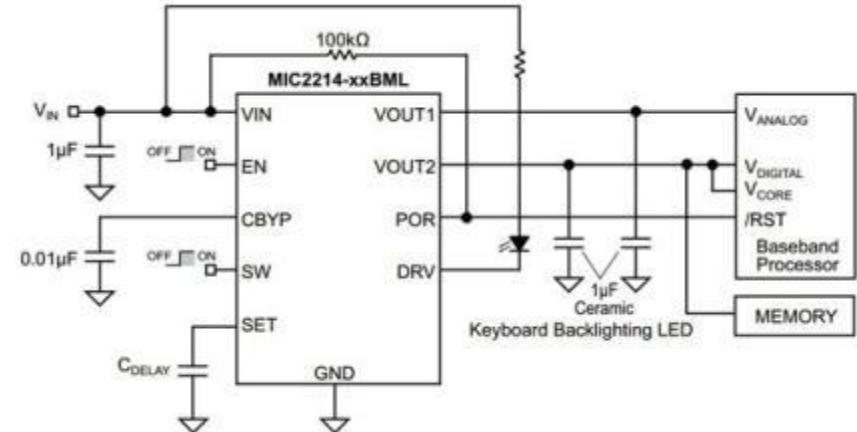
MIC2214

Portable Power Management IC

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 2 LDO outputs
 - Output 1: 150mA output current
 - Output 2: 300mA output current
- 1 Open-drain driver
- Power-on reset function with adjustable delay time
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48 μ A
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- Tiny 3mm x 3mm MLF®-10 package



HOME

<< BACK



MICROCHIP

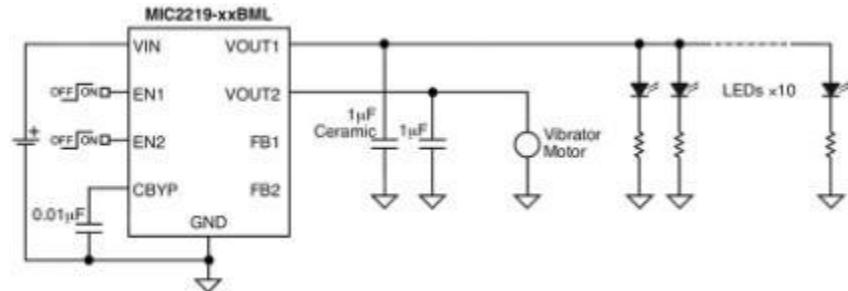
MIC2219

Dynamically Adjustable Dual μ Cap LDO

Online
Datasheet

Features:

- Input voltage range: 2.25V to 5.5V
- Stable with ceramic output capacitor
- 2 LDO outputs
 - Output 1: 150mA output current
 - Output 2: 300mA output current
- Feedback pins externally accessible
- Low dropout voltage of 80mV @ 100mA
- Ultra-low quiescent current of 48 μ A total (24 μ A/LDO)
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection
- Tiny 10-pin 3mm x 3mm MLF® package



[HOME](#)

[<< BACK](#)



MICROCHIP

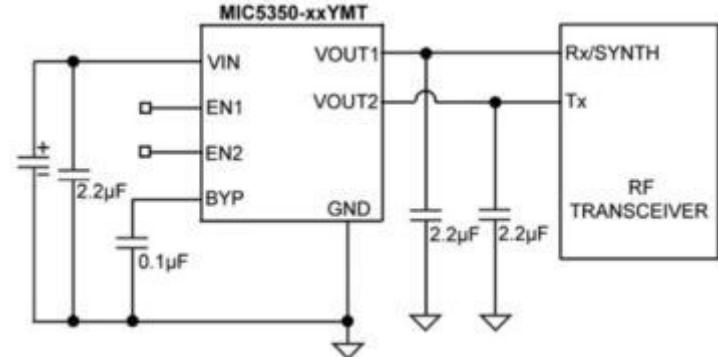
MIC5350

Dual 300mA/500mA LDO in 2mm x 2mm Thin MLF®

Online
Datasheet

Features:

- 2.6V to 5.5V input voltage range
- Ultra-low output noise: $30\mu\text{V}_{\text{rms}}$
- $\pm 2\%$ initial output accuracy
- Excellent Load/Line transient response
- Fast start-up time: 30 μs
- Tiny 8-pin 2mm x 2mm Thin MLF® leadless package
- Ultra-low dropout voltage: 75mV @ 300mA and 125mV @ 500mA
- μCap stable with 2.2 μF ceramic capacitors
- Thermal shutdown protection
- Low quiescent current: 130 μA with both outputs at maximum load
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

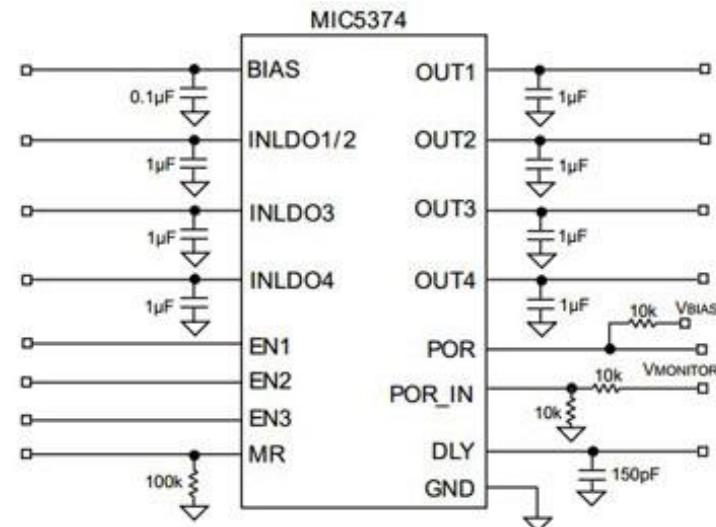
MIC5374/84

Triple 200mA μ Cap LDO & 1mA RTC LDO in 2.5mm x 2.5mm Thin QFN

Online
Datasheet

Features:

- 1.7V to 5.5V input supply voltage range
- Output current: 200mA LDO1/2/3, 1mA LDO4
- LDO4: Ultra low 8 μ A I BIAS for RTC support
- High output accuracy ($\pm 2\%$)
- Independent enable pins
- 2.5mm x 2.5mm Thin QFN 16-pin package
- Thermal shutdown and current limit protection
- POR with user-defined voltage monitoring
- POR voltage input
- Adjustable delay time
- Manual reset pin
- Low dropout voltage: 170mV at 150mA
- High PSRR: 55dB at 1kHz on each LDO
- Stable with tiny ceramic output capacitors



Typical MIC5374-xxxxYMT Circuit

[HOME](#)

[<< BACK](#)



MICROCHIP

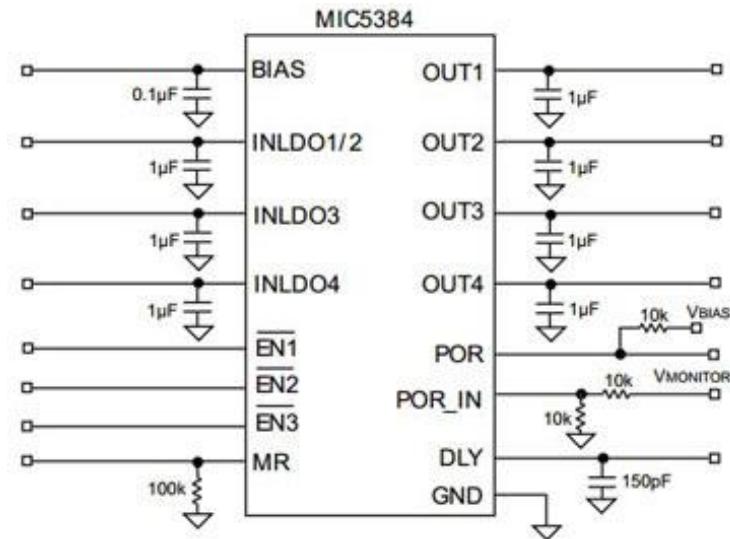
MIC5384

Triple 200mA μ Cap LDO & 1mA RTC LDO in 2.5mm x 2.5mm Thin QFN

Online
Datasheet

Features:

- 1.7V to 5.5V input supply voltage range
- Output current: 200mA LDO1/2/3, 1mA LDO4
- LDO4: Ultra low 8 μ A I BIAS for RTC support
- High output accuracy ($\pm 2\%$)
- Independent enable pins
- 2.5mm x 2.5mm Thin QFN 16-pin package
- Thermal shutdown and current limit protection
- POR with user-defined voltage monitoring
- POR voltage input
- Adjustable delay time
- Manual reset pin
- Low dropout voltage: 170mV at 150mA
- High PSRR: 55dB at 1kHz on each LDO
- Stable with tiny ceramic output capacitors



Typical MIC5384-xxxxYMT Circuit

HOME

<< BACK



MICROCHIP

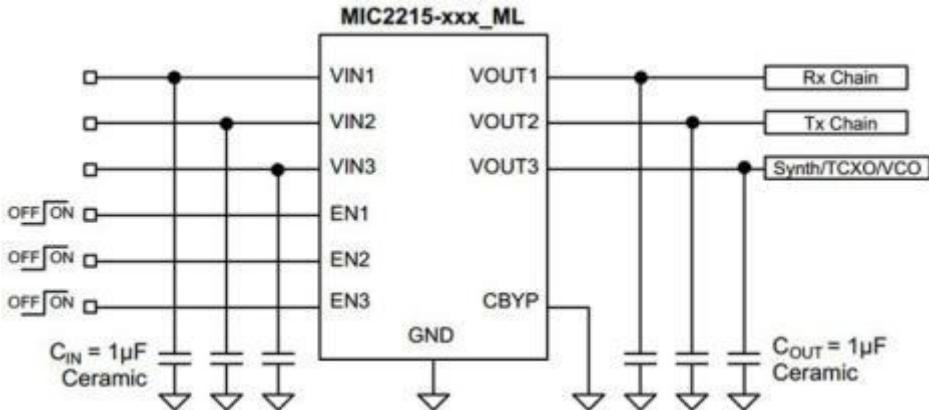
MIC2215

Triple High PSRR Low Noise μ Cap LDO

Online
Datasheet

Features:

- Input voltage range:+2.25V to +5.5V
- 70dB PSRR
- Stable with ceramic output capacitor
- High output accuracy:
- $\pm 1.0\%$ initial accuracy
- $\pm 2.0\%$ over temperature
- Low dropout voltage of 100mV @ 150mA
- Low quiescent current:110 μ A per regulator
- Fast turn-on time: 30 μ s
- Zero off-mode current
- Thermal shutdown protection
- Current-limit protection
- Tiny 16-pin (4mm x 4mm) MLF® package



HOME

<< BACK



MICROCHIP

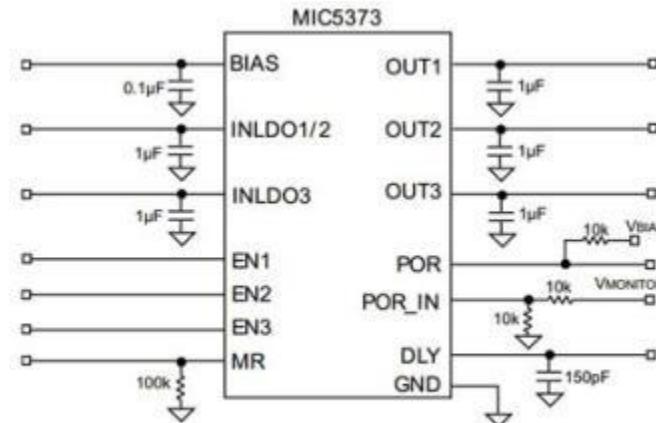
MIC5373/83

Triple 200mA μ Cap LDO in 2.5 x 2.5 Thin MLF®

Online
Datasheet

Features:

- 1.7V to 5.5V input supply voltage range
- Output current: 200mA LDO1/2/3
- High output accuracy ($\pm 2\%$)
- Independent enable pins
- POR with user-defined voltage monitoring
 - POR voltage input
 - Adjustable delay time
 - Manual reset pin
- Low dropout voltage: 170mV at 150mA
- High PSRR: 55dB at 1kHz on each LDO
- Stable with tiny ceramic output capacitors
- 2.5mm x 2.5mm Thin MLF® 16-pin package
- Thermal shutdown and current limit protection



Typical MIC5373-xxxYMT Circuit

HOME

<< BACK



MICROCHIP

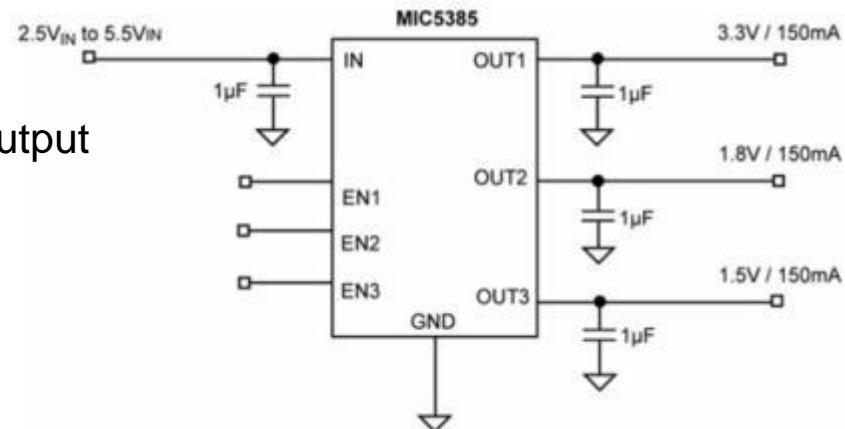
MIC5385

Ultra Small Triple 150mA Output LDO

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current for each output
- Stable with ceramic output capacitors
- Low dropout voltage: 180mV @ 150mA
- Excellent Load/Line Transient Response
- Low quiescent current: 32 μ A per LDO
- High PSRR: 70dB
- High output accuracy
 - $\pm 2\%$ initial accuracy
- Thermal shutdown and current limit protection
- Available in tiny 2mm x 2mm Thin MLF®



HOME

<< BACK



MICROCHIP

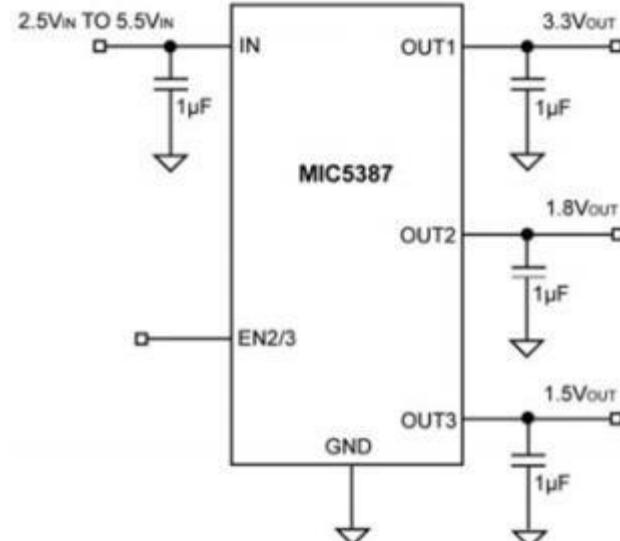
MIC5387

Ultra Small Triple 150mA Output LDO

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- 150mA guaranteed output current for each output
- Stable with ceramic output capacitors
- Low dropout voltage: 180mV @ 150mA
- Excellent Load/Line Transient Response
- Low quiescent current: 32 μ A per LDO
- High PSRR: 70dB
- High output accuracy
 - $\pm 2\%$ initial accuracy
- Thermal-shutdown and current-limit protection
- Available in a tiny 6-pin 1.6mm x 1.6mm Thin MLF®



[HOME](#)

[<< BACK](#)



MICROCHIP

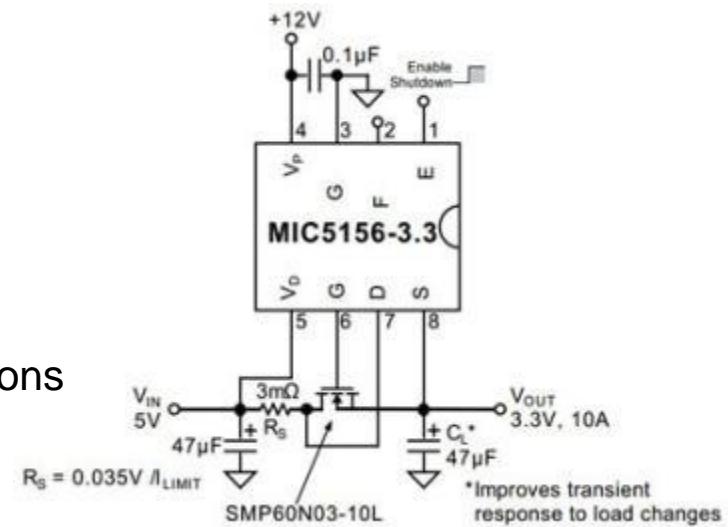
MIC5156/57/58

Super LDO Regulator Controller

Online
Datasheet

Features:

- 4.5mA typical operating current
- <1 μ A typical standby current
- Low external parts count
- Optional current limit (35mV typical threshold)
- 1% initial output voltage tolerance in most configurations
- 2% output voltage tolerance over temperature
- Fixed output voltages of 3.3V, 5.0V (MIC5156)
- Fixed output voltages of 3.3V, 5.0V, 12V (MIC5157)
- Programmable (1.3V to 36V) with 2 resistors (MIC5156/8)
- Internal charge pump voltage tripler (MIC5157/8)
- Enable pin to activate or shutdown the regulator
- Internal gate-to-source protective clamp
- All versions available in DIP and SOIC



HOME

<< BACK



MICROCHIP

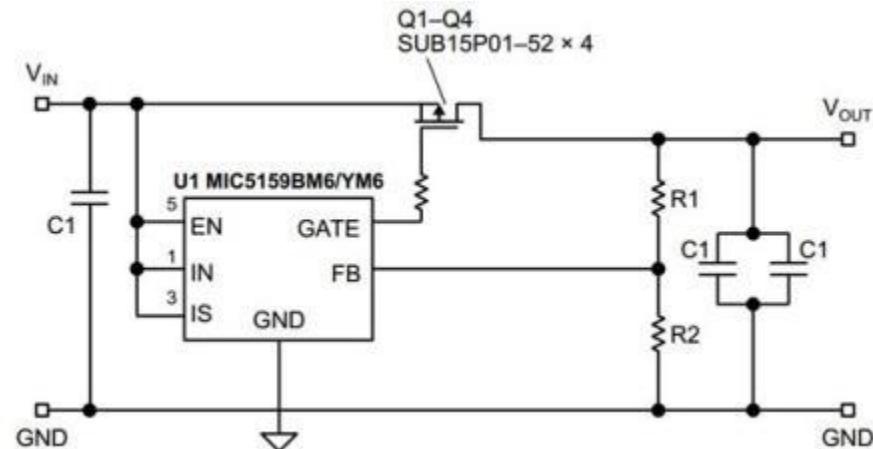
MIC5159

Programmable Current Limit μ Cap LDO Regulator Controller

Online
Datasheet

Features:

- Fast transient response
- Input voltage range: V_{IN} : 1.65V to 5.5V
- $\pm 1.0\%$ initial output tolerance
- Stable with ceramic output capacitor
- Capable up to 10A
- Logic-controlled shutdown
- Programmable current limit
- Excellent line and load regulation specifications
- Fixed 1.8V or adjustable output voltage down to 1.25V
- Current limit protection
- IttyBitty® SOT-23-6 Package
- Available temperature range: $-40^{\circ}C$ to $+125^{\circ}C$



HOME

<< BACK



MICROCHIP

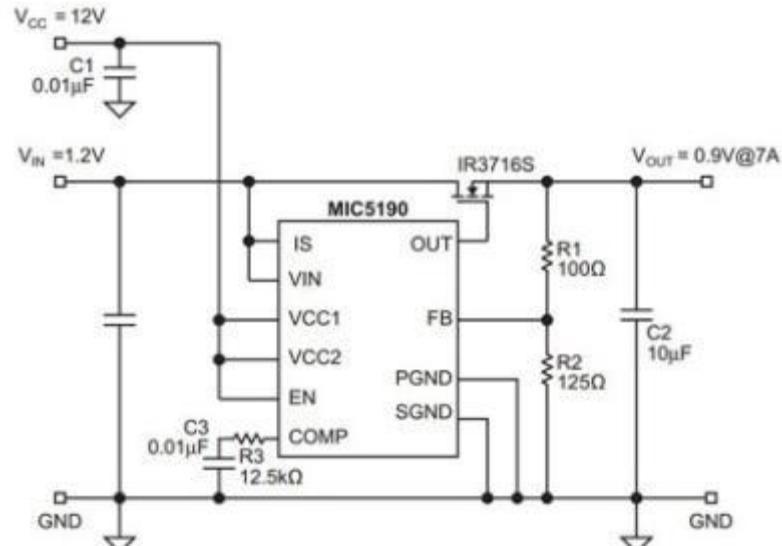
MIC5190

Ultra High-Speed High-Current Active Filter/LDO Controller

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 0.9V$ to $5.5V$
- $\pm 1.0\%$ initial output tolerance
- Dropout down to $25mV$ @ $10A$
- Filters out switching frequency noise on input
- Very high large signal bandwidth $>500kHz$
- PSRR $>40dB$ at $500kHz$
- Adjustable output voltage down to $0.5V$
- Stable with any output capacitor
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Current limit protection
- $3mm \times 3mm$ 10-lead MLF® and MSOP-10 packages
- Available $-40^\circ C$ to $+125^\circ C$ junction temperature



HOME

<< BACK



MICROCHIP

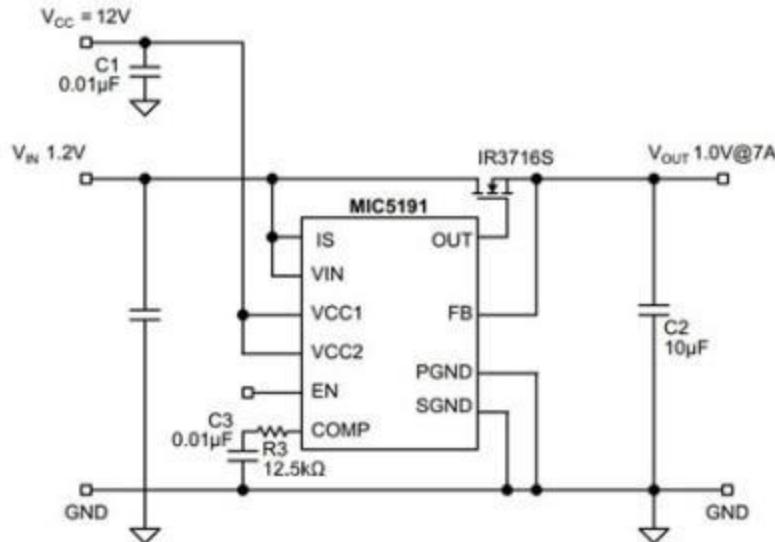
MIC5191

Ultra High-Speed High-Current Active Filter/LDO Controller

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $5.5V$
- $\pm 1.0\%$ initial output tolerance
- Dropout down to $25mV$ @ $10A$
- Filters out switching frequency noise on input
- Very high large signal bandwidth $>500kHz$
- PSRR $>40dB$ at $500kHz$
- Adjustable output voltage down to $1.0V$
- Stable with any output capacitor
- Excellent line and load regulation specifications
- Logic controlled shutdown
- Current limit protection
- 10-lead MLF® and MSOP-10 packages
- Available - $-40^\circ C$ to $+125^\circ C$ junction temperature



[HOME](#)

[<< BACK](#)



MICROCHIP

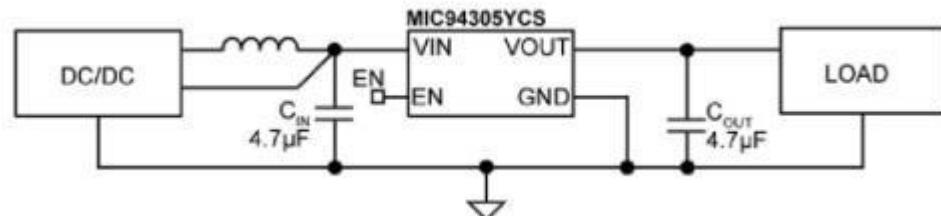
MIC94305

500mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 500mA output current
- Current-limit and thermal-limit protected
- Ultra-small 0.84mm x 1.32mm 6-ball CSP
- 1.6mm x 1.6mm, 6-pin Thin DFN
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



[HOME](#)

[<< BACK](#)



MICROCHIP

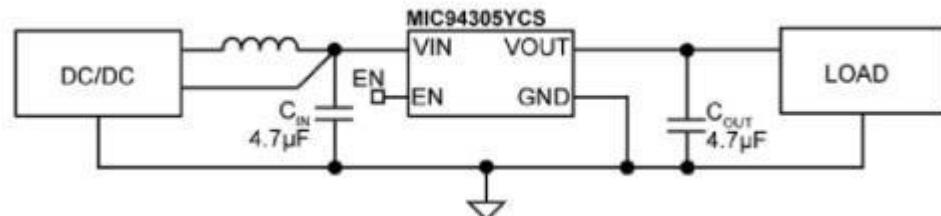
MIC94305

500mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 500mA output current
- Current-limit and thermal-limit protected
- Ultra-small 0.84mm x 1.32mm 6-ball CSP
- 1.6mm x 1.6mm, 6-pin Thin DFN
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

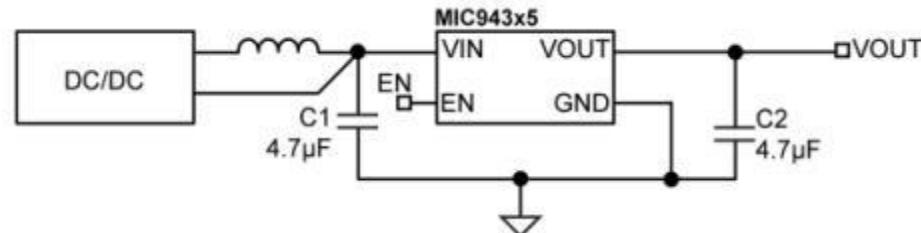
MIC94325/45/55

500mA LDO with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >50dB from 10Hz to 5MHz at 500mA load
- Rated to 500mA output current
- Fixed and adjustable output voltages
- Optional output auto-discharge when disabled
- Current-limit and thermal-limit protected
- Ultra-small 0.84mm x 1.32mm 6-ball CSP
- 1.6mm x 1.6mm, 6-pin Thin DFN
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

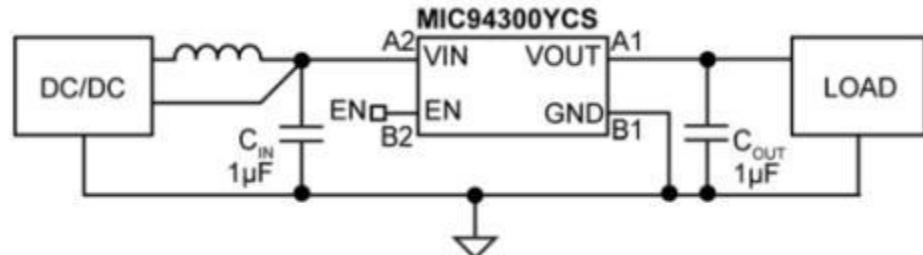
MIC94300

200mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 200mA output current
- Current-limit and thermal-limit protected
- Ultra-small 0.88mm x 0.88mm 4-ball CSP
- 1.2mm x 1.6mm, 4-pin Thin MLF®
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



[HOME](#)

[<< BACK](#)



MICROCHIP

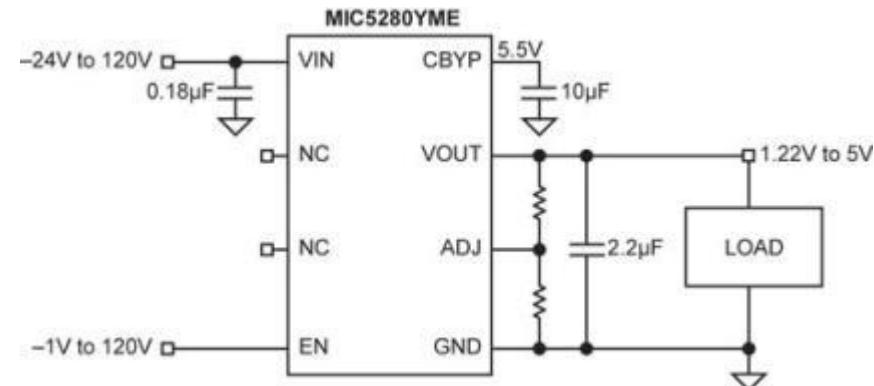
MAQ5280

25mA 120V Low IQ High-PSRR LDO

Online
Datasheet

Features:

- Wide input voltage range: 4.5V to 120V DC
- Very low quiescent current: 31 μ A typical
- 25mA guaranteed output current
- Adjustable output from 1.215V to 5V
- DC voltage protection down to -24V
- Ability to withstand up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra high PSRR >80dB for RF applications
- High output accuracy
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature (-40°C to +125°C)
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad SOIC package
- AEC-Q100 qualified



HOME

<< BACK



MICROCHIP

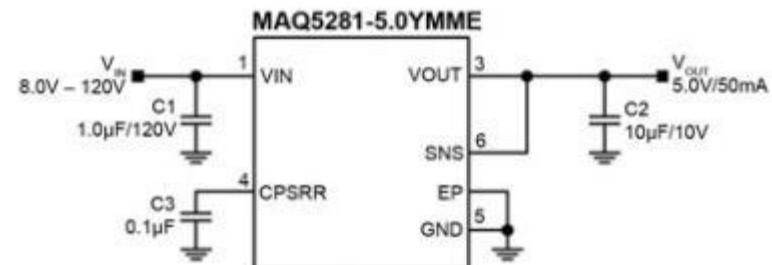
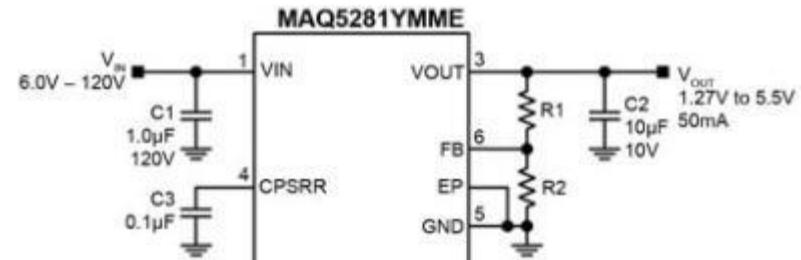
MAQ5281

120VIN 25mA Ultra-Low IQ High-PSRR Linear Regulator

Online
Datasheet

Features:

- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6 μ A
- 25mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR <90dB
- Ultra-high line rejection (load dump)
- High output accuracy:
 - $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad MSOP package



[HOME](#)

[<< BACK](#)



MICROCHIP

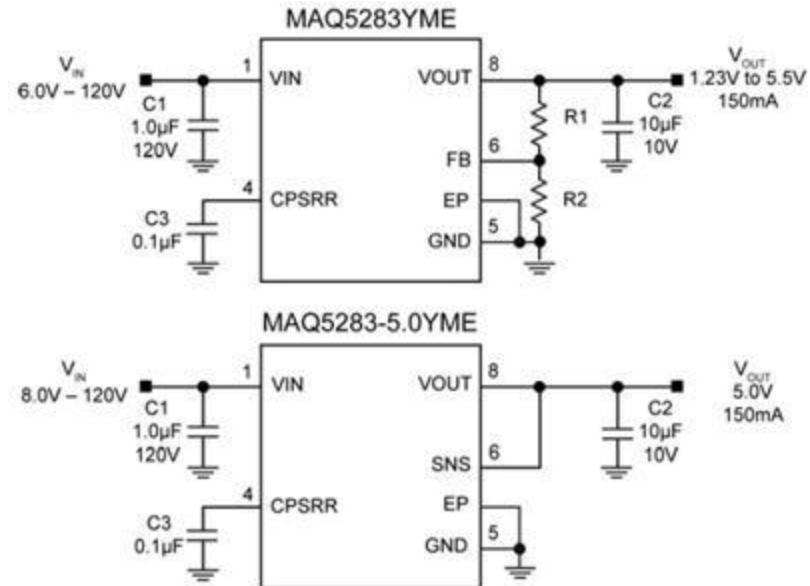
MAQ5282

120V_{IN} 50mA Ultra-Low I_Q High-PSRR Linear Regulator

Online
Datasheet

Features:

- AEC-Q100 qualified
- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 6µA
- 50mA guaranteed output current
- Adjustable output from 1.27V to 5.5V
- Withstands up to +120V DC at the input
- Stable with ceramic output capacitors
- Ultra-high PSRR (80dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy: $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient 8-pin ePad MSOP package



[HOME](#)

[<< BACK](#)



MICROCHIP

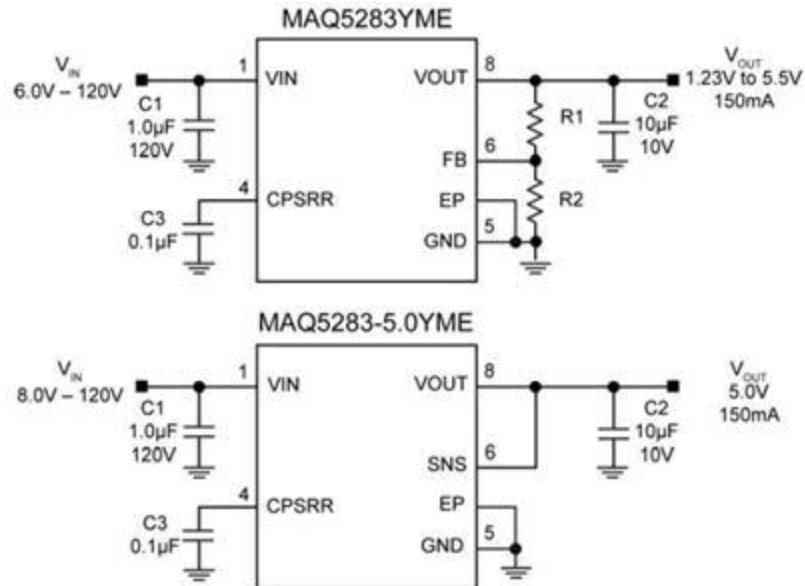
MAQ5283

120V_{IN} 150mA Ultra-Low I_Q High-PSRR Linear Regulator

Online
Datasheet

Features:

- AEC-Q100 qualified
- Wide input voltage range: 6V to 120V DC
- Ultra-low quiescent current: 8µA
- 150mA guaranteed output current
- Adjustable output from 1.23V to 5.5V
- Stable with ceramic capacitors
- Ultra-high PSRR (75dB at 10kHz)
- Ultra-high line rejection (load dump)
- High output accuracy: $\pm 3\%$ initial accuracy
- Thermal shutdown and current limit protection
- Thermally efficient, 8-pin ePad SOIC package



HOME

<< BACK



MICROCHIP

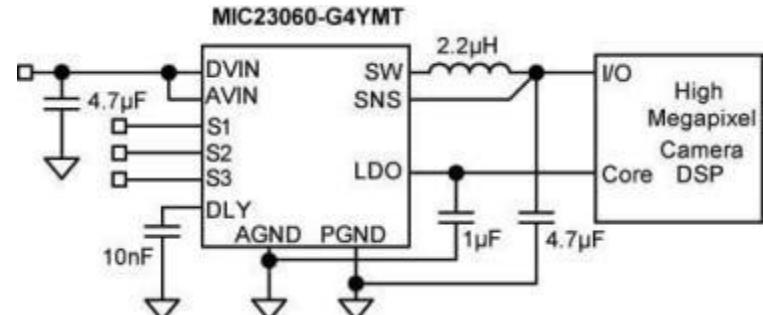
MIC23060

Sequenced PMIC with HyperLight Load® DC/DC and Dual Input LDO

Online
Datasheet

Features:

- 2.7V to 5.5V supply voltage range
- Tiny 12-pin 2.5mm x 2.5mm Thin MLF® package
- Dual Input LDO™ can turn-on prior to DC/DC converter and automatically switch post regulation from the DC/DC converter after it starts



HyperLight Load® DC/DC Converter

- 4MHz frequency in continuous PWM mode
- Tiny 2.2μH inductor, 4.7μF capacitor
- 85% Efficiency at 1mA output current
- >90% peak efficiency

LDO Regulator

- 300mA output current capability
- High Accuracy: ±3% over temperature
- High PSRR: greater than 60dB
- Very low quiescent current: 16μA

[HOME](#)

[<< BACK](#)



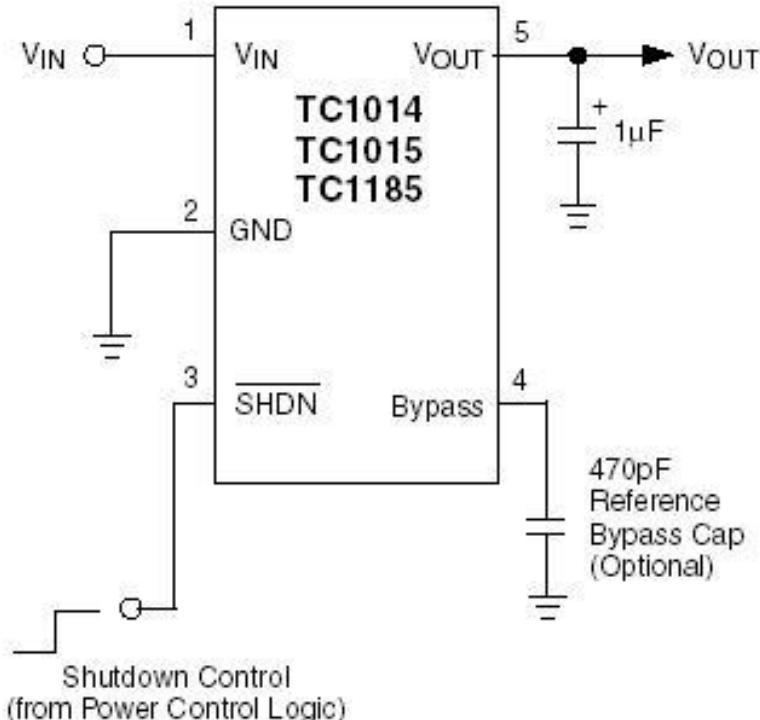
MICROCHIP

TC1014

Online
Datasheet

Features:

- Low Supply Current: 50 μ A (typ.)
- Low Dropout Voltage
- Choice of 50mA (TC1014), 100mA (TC1015) and 150mA (TC1185) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin-Compatible Upgrades for Bipolar Regulators



[TC1054 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1014

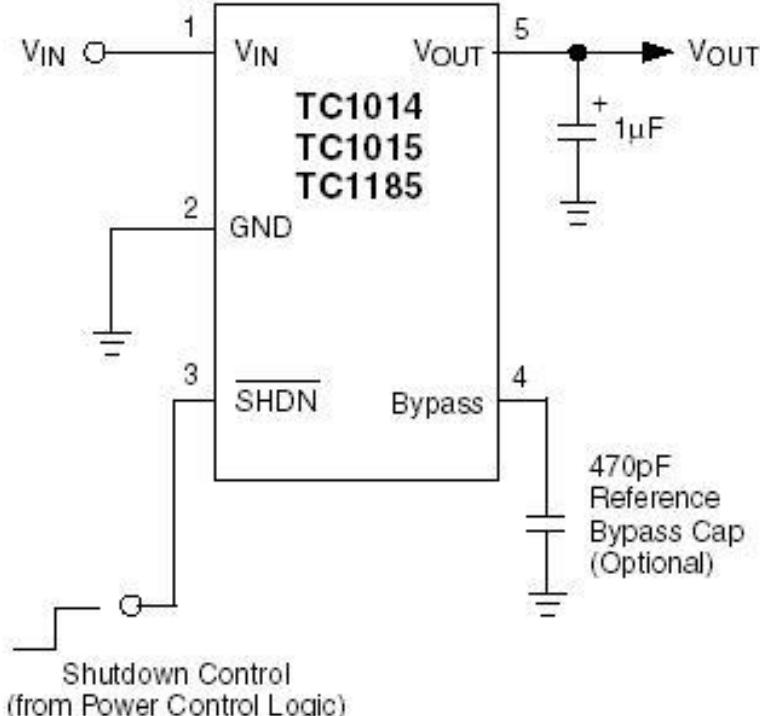


Online
Datasheet

Features:

- Low Supply Current: 50 μ A (typ.)
- Low Dropout Voltage
- Choice of 50mA (TC1014), 100mA (TC1015) and 150mA (TC1185) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin-Compatible Upgrades for Bipolar Regulators

Recommended for Automotive Design



[TC1054 >>](#)

[HOME](#)

[<< BACK](#)



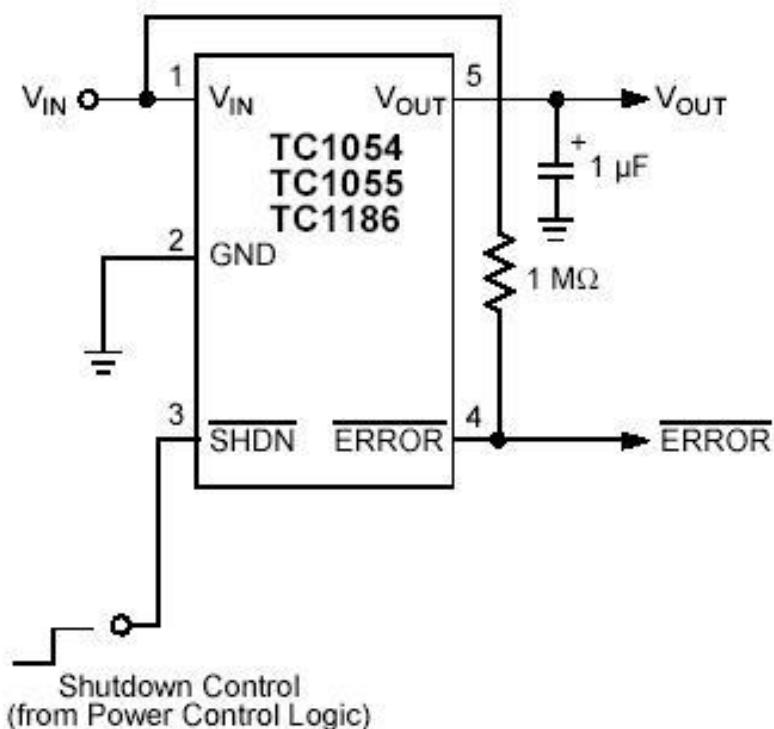
MICROCHIP

TC1054

Online
Datasheet

Features:

- Low Ground Current for Longer Battery Life
- Low Dropout Voltage
- Choice of 50mA (TC1054), 100mA (TC1055) and 150mA (TC1186) Output
- High Output Voltage Accuracy
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Microcontroller Reset Generator
- Overcurrent and Overtemperature Protection
- 5-Pin SOT-23 Package
- Pin Compatible Upgrades for Bipolar Regulators



[TC1014 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1054



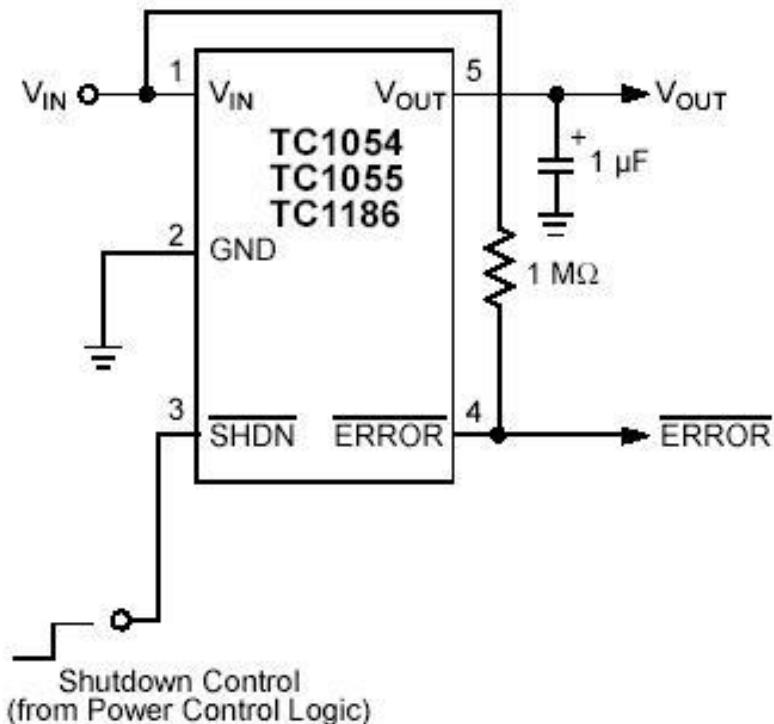
Recommended for
Automotive Designs

Online
Datasheet

Features:

- Low Ground Current for Longer Battery Life
- Low Dropout Voltage
- Choice of 50mA (TC1054), 100mA (TC1055) and 150mA (TC1186) Output
- High Output Voltage Accuracy
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Microcontroller Reset Generator
- Overcurrent and Overtemperature Protection
- 5-Pin SOT-23 Package
- Pin Compatible Upgrades for Bipolar Regulators

Recommended for Automotive Design



Shutdown Control
(from Power Control Logic)

[TC1014 >>](#)

[HOME](#)

[<< BACK](#)



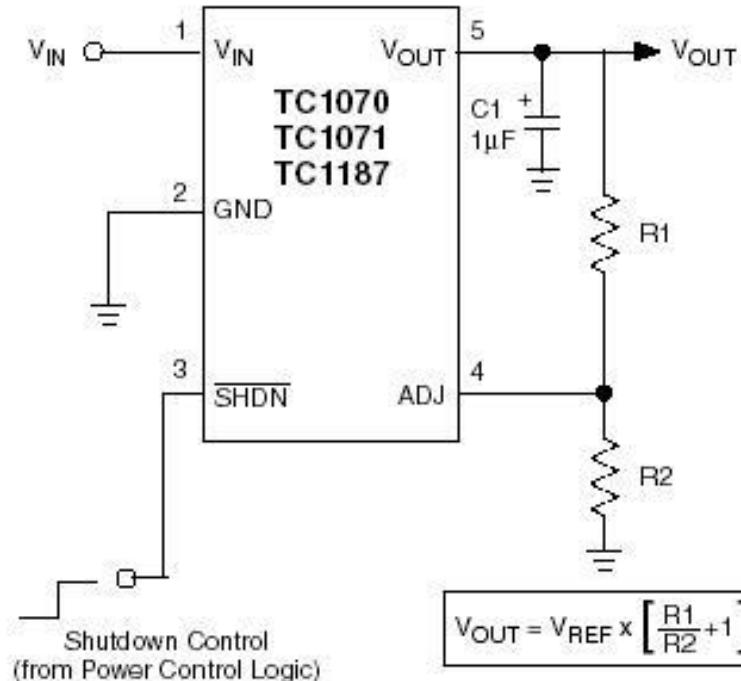
MICROCHIP

TC1070

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Adjustable Output Voltage
- Very Low Dropout Voltage
- Choice of 50mA (TC1070), 100mA (TC1071) and 150mA (TC1187) Output
- Power-Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible with Bipolar Regulators



[TC1072 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1070

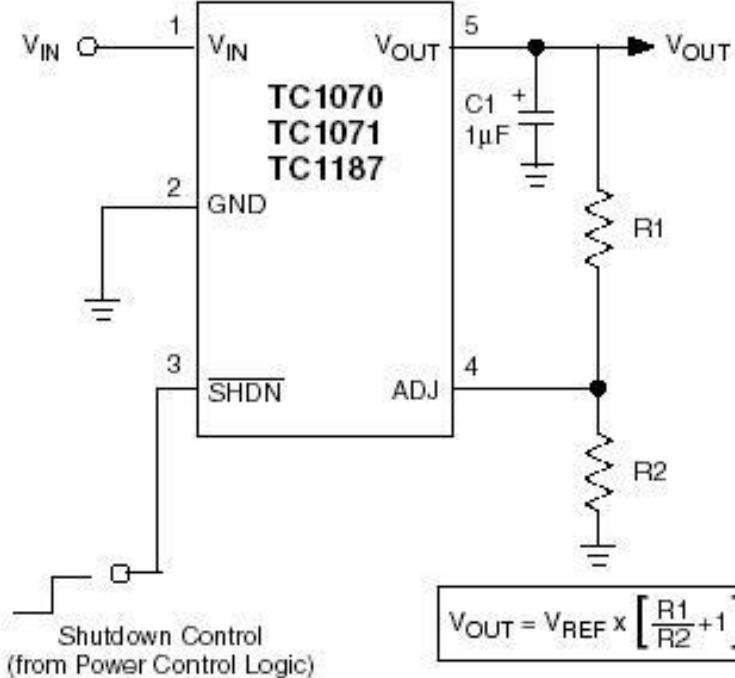


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Adjustable Output Voltage
- Very Low Dropout Voltage
- Choice of 50mA (TC1070), 100mA (TC1071) and 150mA (TC1187) Output
- Power-Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible with Bipolar Regulators
- Recommended for Automotive Design



[TC1072 >>](#)

[HOME](#)

[<< BACK](#)



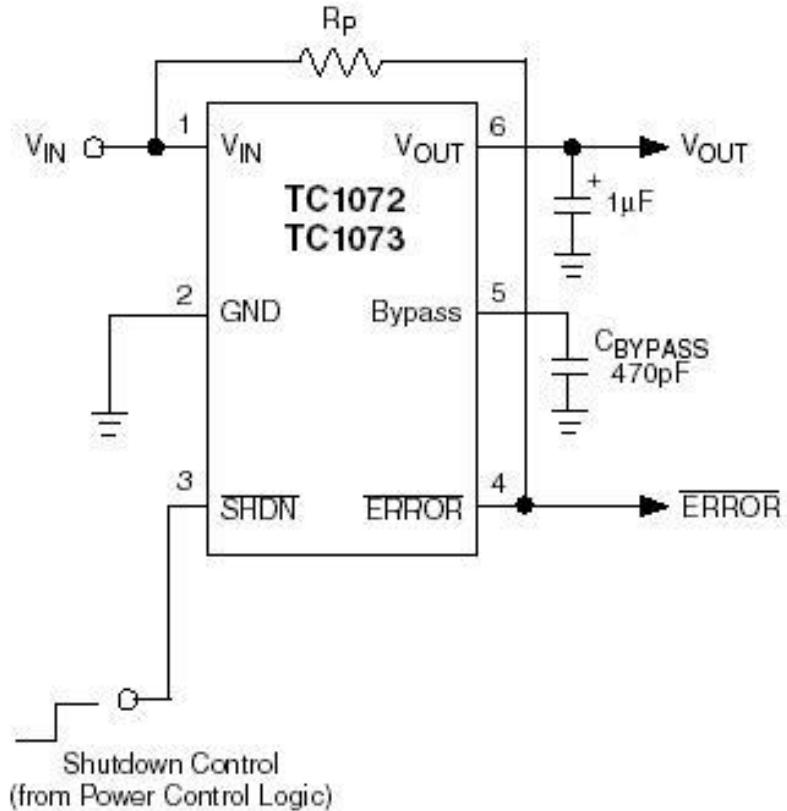
MICROCHIP

TC1072

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Very Low Dropout Voltage
- Choice of 50mA (TC1072) and 100mA (TC1073) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Processor Reset Generator
- Bypass Input for Low Noise Operation
- Overcurrent and Overtemperature Protection
- Space-Saving 6-Pin SOT-23 Package
- Pin Compatible Upgrades for Bipolar Regulators
- Standard Output Voltage Options:
1.8V, 2.5V, 2.6V, 2.7V, 2.8V, 2.85V, 3.0V,
3.3V, 3.6V, 4.0V, 5.0V
- Other output voltages are available. Please contact Microchip Technology Inc. for details.



[TC1070 >>](#)

[HOME](#)

[<< BACK](#)



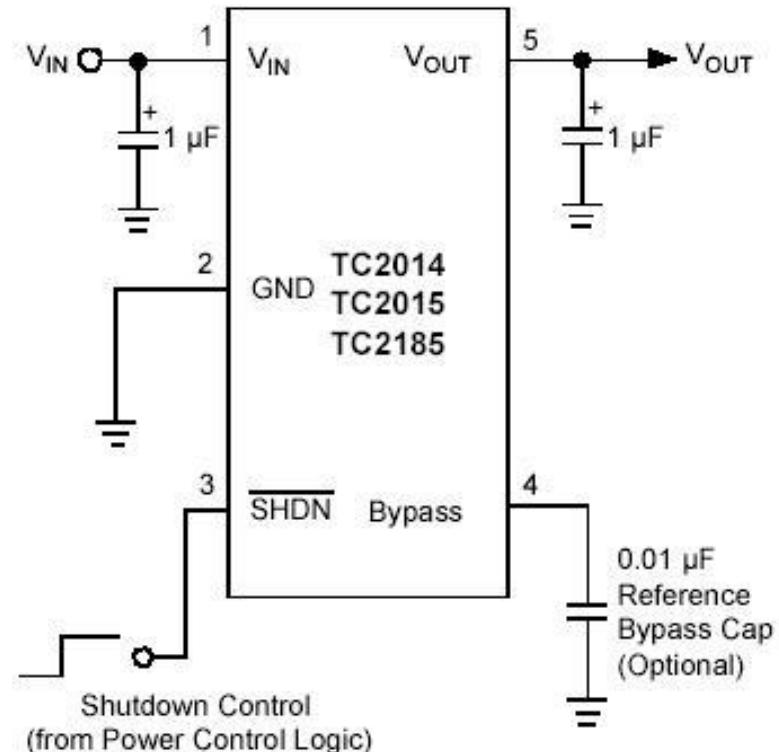
MICROCHIP

TC2014

Online
Datasheet

Features:

- Low Supply Current: 55 μ A (typical)
- Low Dropout Voltage: 45 mV (typ.) @ 50 mA
- High-Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Fast Shutdown Response Time: 60 μ s (typ.)
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin-Compatible Upgrades for Bipolar Regulators
- Stable with Ceramic Output Capacitors
- Wide Operating Temperature Range:
-40°C to +125°C
- Standard Output Voltage Options:
1.8V, 2.5V, 2.6V, 2.7V, 2.8V, 2.85V, 3.0V,
3.3V, 5.0V



[TC2054 >>](#)

[HOME](#)

[<< BACK](#)



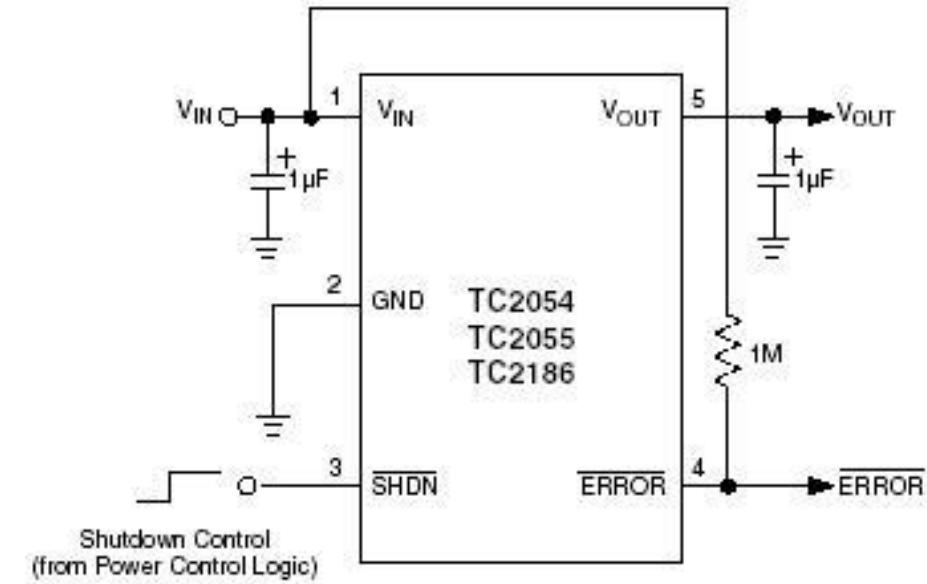
MICROCHIP

TC2054

Online
Datasheet

Features:

- Low Supply Current: 55 μ A (typ.)
- Low Dropout Voltage:
45 mV (typ.) @ 50 mA
- High Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Processor Reset Generator
- Fast Shutdown Response Time: 60 μ s (typ.)
- Overcurrent and
Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin Compatible Upgrades for
Bipolar Regulators
- Stable with Ceramic Output Capacitors



[TC2014 >>](#)

[HOME](#)

[<< BACK](#)



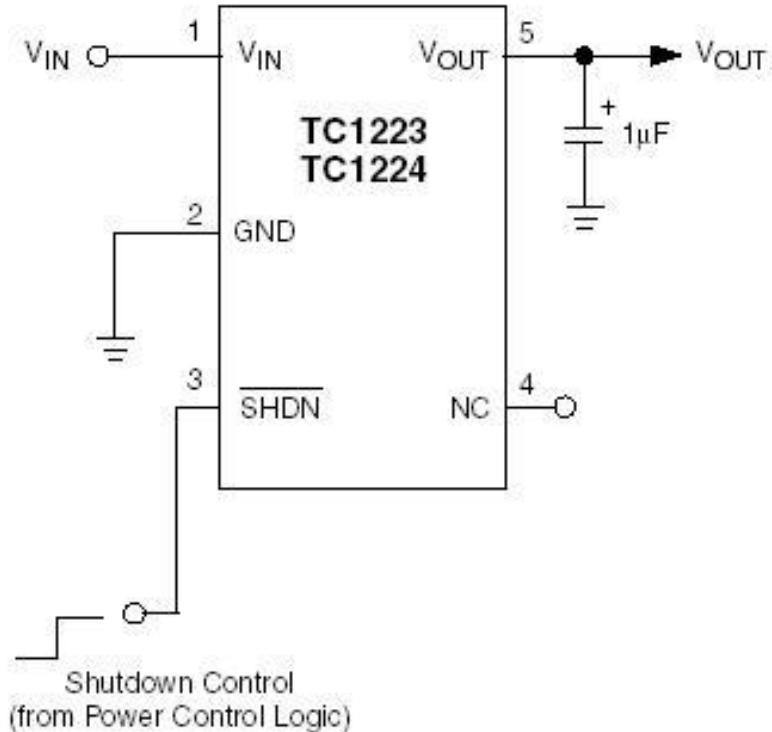
MICROCHIP

TC1223

Online
Datasheet

Features:

- Extremely Low Ground Current for Longer Battery Life
- Very Low Dropout Voltage
- Choice of 50mA and 100mA Output (TC1223 and TC1224, respectively)
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin Compatible Upgrades for Bipolar Regulators



[HOME](#)

[<< BACK](#)



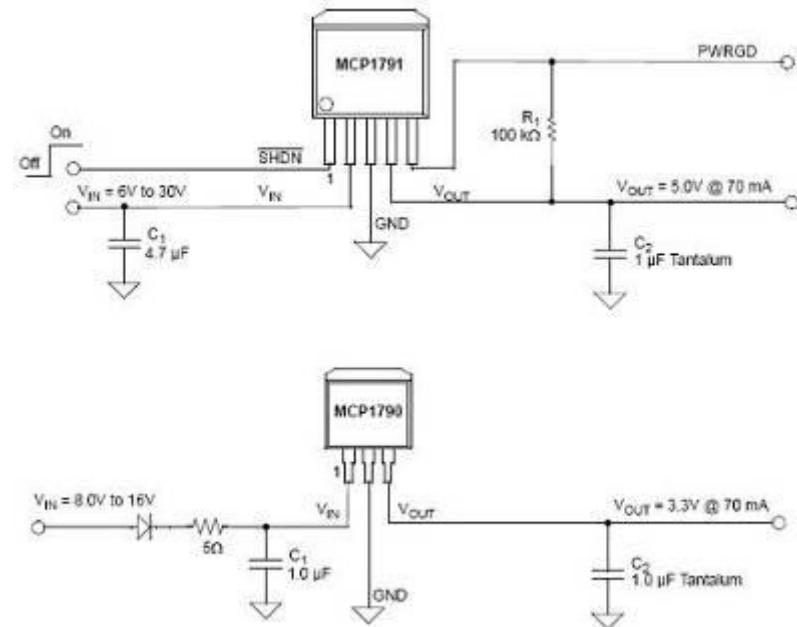
MICROCHIP

MCP1790/1

Online
Datasheet

Features:

- 48V ($43.5V \pm 10\%$) load dump protected for 180ms with a 30 second repetition rate (FORD Test Pulse G Loaded)
- Wide steady state supply voltage, 6.0V to 30.0V
- Extended Junction Temperature Range:
-40°C to +125°C
- Fixed output voltages: 3.0V, 3.3V, 5.0V
- Low quiescent current: 70 μ A (typ.)
- Low shutdown quiescent current: 10 μ A (typ.)
- Output Voltage Tolerances of $\pm 2.5\%$ over the temperature range
- Maximum output current of 70mA @ +125°C Junction Temperature
- Maximum continuous input voltage of 30V
- Internal thermal overload protection, +157°C (typ.) Junction Temperature
- Internal short circuit current limit, 120mA (typ.) for +5V option
- Short Circuit Current Foldback
- Shutdown Input option (MCP1791)
- Power Good Output option (MCP1791)
- High PSRR, -90 dB @100Hz (typ.)
- Stable with 1 μ F to 1000 μ F tantalum and electrolytic Capacitors
- Stable with 4.7 μ F to 1000 μ F ceramic capacitors



HOME

<< BACK



MICROCHIP

MCP1790/1

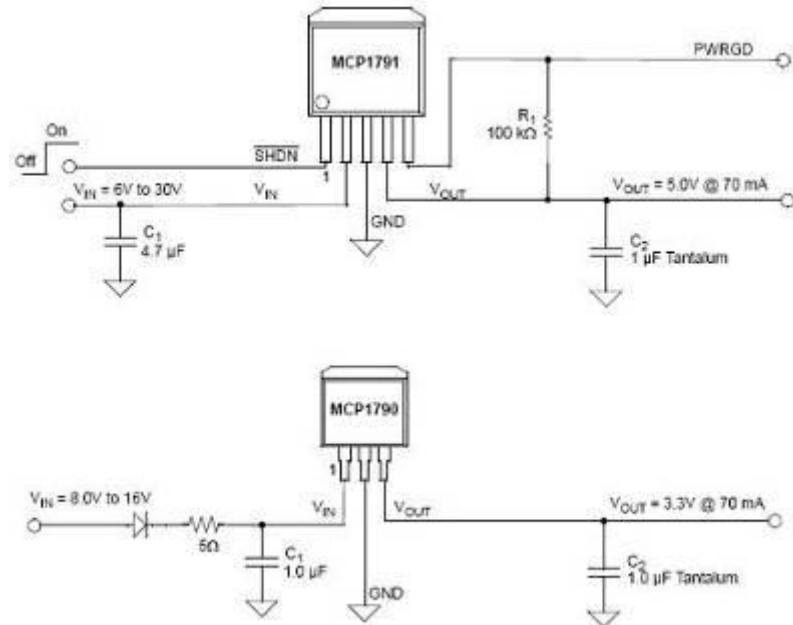


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 48V ($43.5V \pm 10\%$) load dump protected for 180ms with a 30 second repetition rate (FORD Test Pulse G Loaded)
- Wide steady state supply voltage, 6.0V to 30.0V
- Extended Junction Temperature Range:
 -40°C to $+125^{\circ}\text{C}$
- Fixed output voltages: 3.0V, 3.3V, 5.0V
- Low quiescent current: $70\mu\text{A}$ (typ.)
- Low shutdown quiescent current: $10\mu\text{A}$ (typ.)
- Output Voltage Tolerances of $\pm 2.5\%$ over the temperature range
- Maximum output current of 70mA @ $+125^{\circ}\text{C}$ Junction Temperature
- Maximum continuous input voltage of 30V
- Internal thermal overload protection, $+157^{\circ}\text{C}$ (typ.) Junction Temperature
- Internal short circuit current limit, 120mA (typ.) for +5V option
- Short Circuit Current Foldback
- Shutdown Input option (MCP1791)
- Power Good Output option (MCP1791)
- High PSRR, -90 dB @100Hz (typ.)
- Stable with $1\mu\text{F}$ to $1000\mu\text{F}$ tantalum and electrolytic Capacitors
- Stable with $4.7\mu\text{F}$ to $1000\mu\text{F}$ ceramic capacitors
- Recommended for Automotive Design



[HOME](#)

[<< BACK](#)



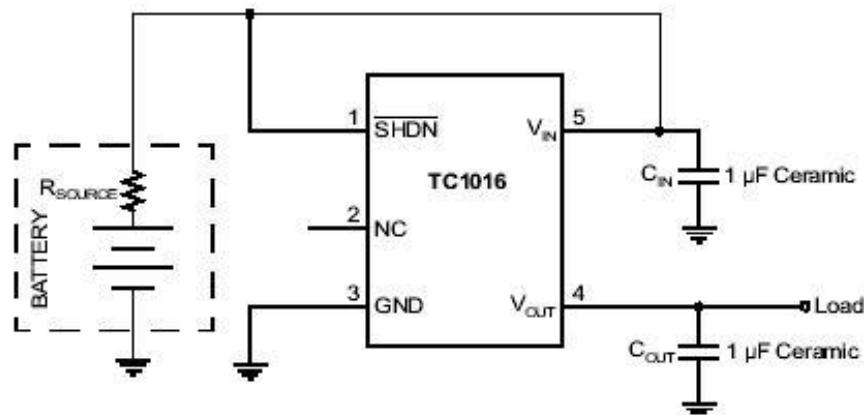
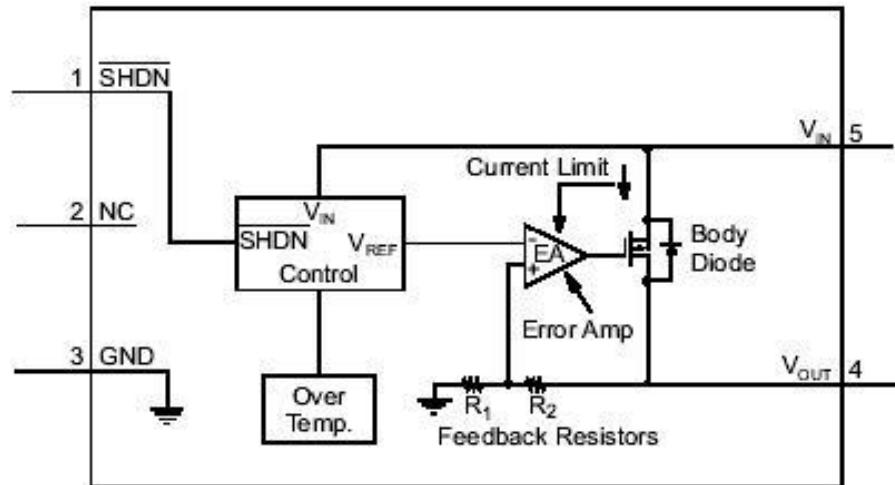
MICROCHIP

TC1016

Online
Datasheet

Features:

- Space-Saving 5-Pin SC-70 Package
- Low Operating Current: $53\mu\text{A}$ (typ.)
Shutdown Mode: $0.05\mu\text{A}$ (typ.)
- Very Low Dropout Voltage
- Rated 80mA Output Current
- Requires only $1\mu\text{F}$ Ceramic Output Capacitance
- High Output Voltage Accuracy:
 $\pm 0.5\%$ (typ.)
- $10\mu\text{s}$ (typ.) Wake-Up Time from SHDN
- Overcurrent and Overtemperature Protection
- Pin Compatible Upgrades for Bipolar Regulators



[HOME](#)

[<< BACK](#)



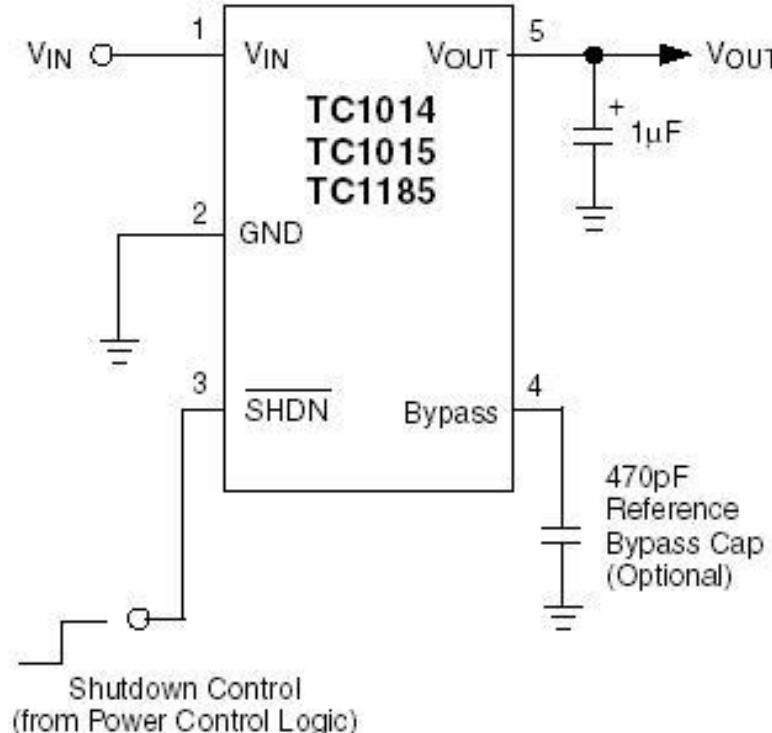
MICROCHIP

TC1015

Online
Datasheet

Features:

- Low Supply Current: 50 μ A (typ.)
- Low Dropout Voltage
- Choice of 50mA (TC1014), 100mA (TC1015) and 150mA (TC1185) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible Upgrades for Bipolar Regulators



[TC1055 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1055

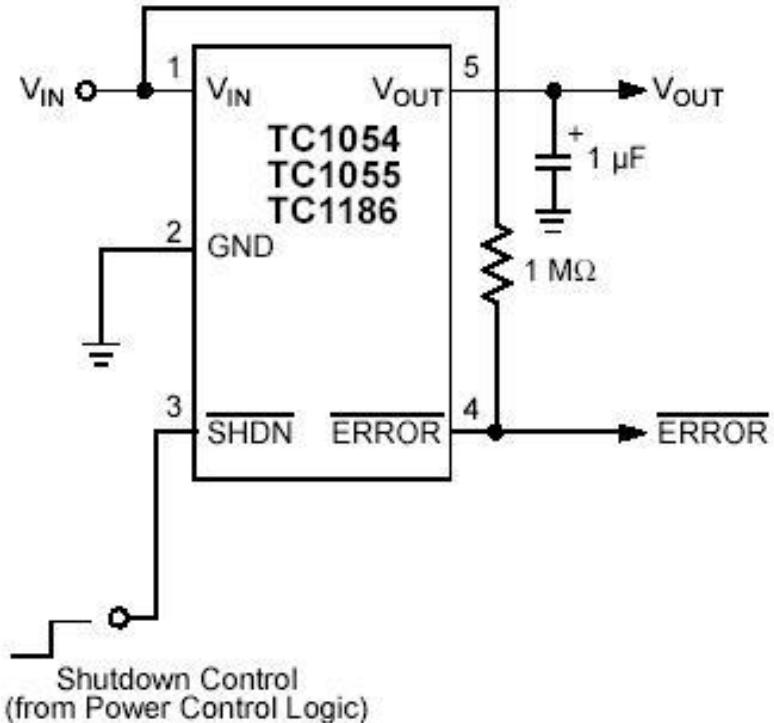


Recommended for
Automotive Designs

Online
Datasheet

Features:

- Low Ground Current
- Low Dropout Voltage
- Choice of 50mA (TC1054), 100mA (TC1055) and 150mA (TC1186) Output
- High Output Voltage Accuracy
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Microcontroller Reset Generator
- Overcurrent and Overtemperature Protection
- 5-Pin SOT-23 Package
- Pin Compatible Upgrades for Bipolar Regulators
- Recommended for Automotive Design



[TC1015 >>](#)

[HOME](#)

[<< BACK](#)



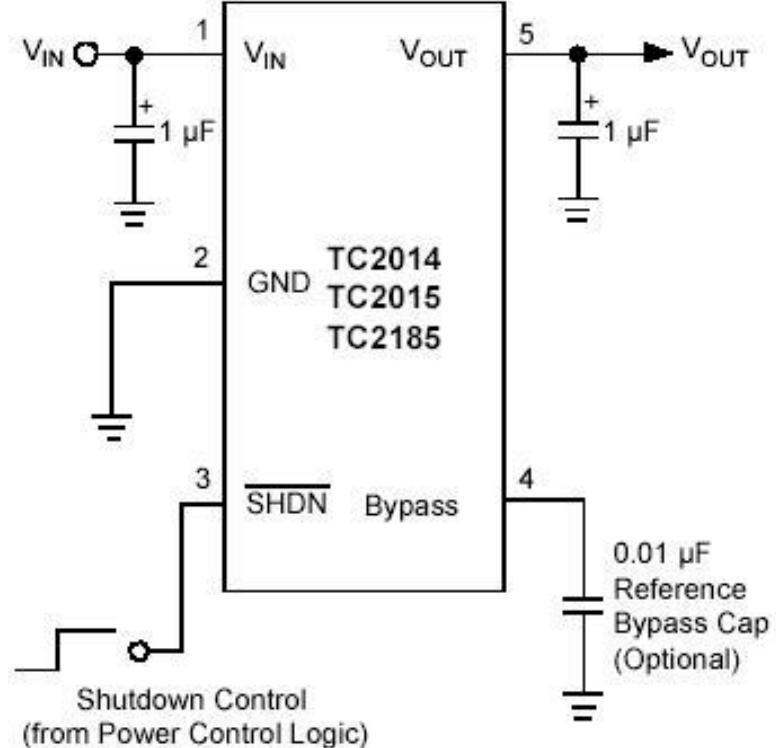
MICROCHIP

TC2015

Online
Datasheet

Features:

- Low Supply Current: 55 μ A (typical)
- Low Dropout Voltage: 90 mV (typ.) @ 100 mA
- High-Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Fast Shutdown Response Time: 60 μ s (typ.)
- Over-current and Over-temperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin-Compatible Upgrades for Bipolar Regulators
- Stable with Ceramic Output Capacitors
- Wide Operating Temperature Range:
-40°C to +125°C



[TC2055 >>](#)

[HOME](#)

[<< BACK](#)



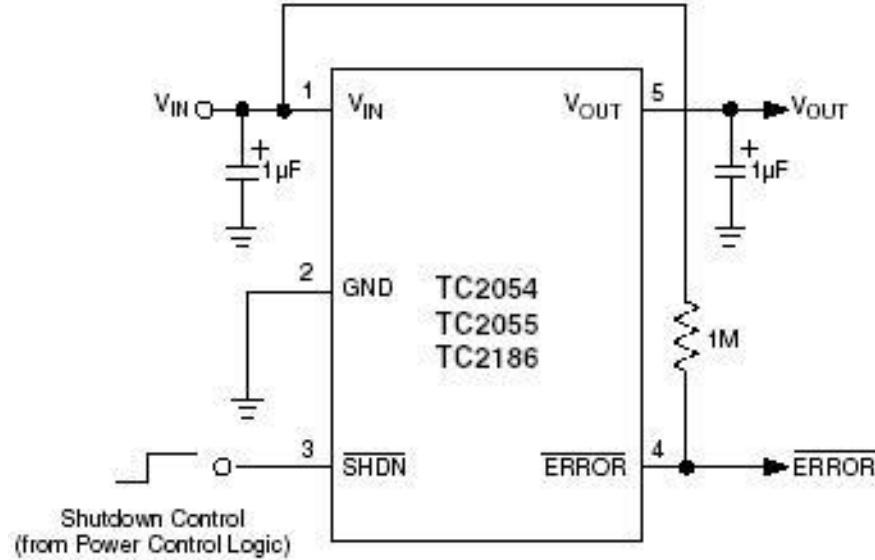
MICROCHIP

TC2055

Online
Datasheet

Features:

- Low Supply Current, 55 μ A (typ.)
- Low Dropout Voltage: 90 mV (typ.) @ 100 mA
- High Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Processor Reset Generator
- Fast Shutdown Response Time: 60 μ s (typ.)
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin Compatible Upgrades for Bipolar Regulators
- Stable with Ceramic Output Capacitors



[TC2015 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1071

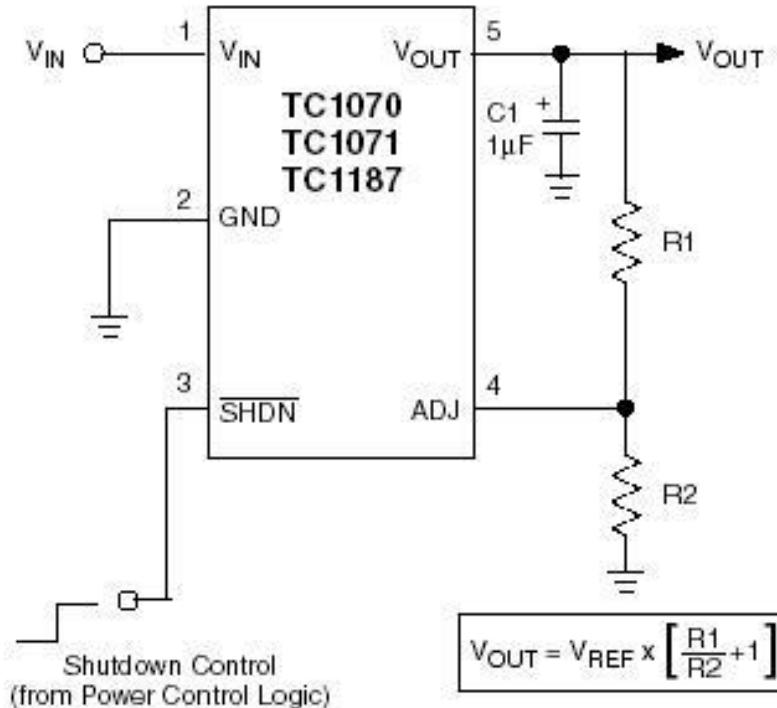


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Adjustable Output Voltage
- Very Low Dropout Voltage
- Choice of 50mA (TC1070), 100mA (TC1071) and 150mA (TC1187) Output
- Power-Saving Shutdown Mode
- Over Current and Over Temperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible with Bipolar Regulators
- Recommended for Automotive Design



[TC1073 >>](#)

[HOME](#)

[<< BACK](#)



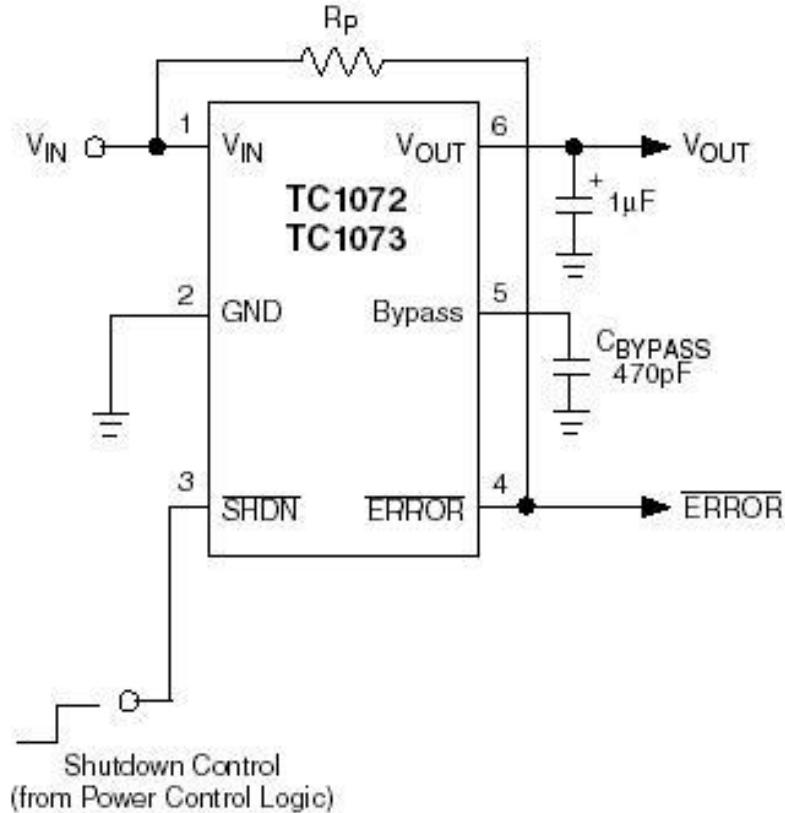
MICROCHIP

TC1073

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Adjustable Output Voltage
- Very Low Dropout Voltage
- Choice of 50mA (TC1070), 100mA (TC1071) and 150mA (TC1187) Output
- Power-Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible with Bipolar Regulators



[TC1071 >>](#)

[HOME](#)

[<< BACK](#)



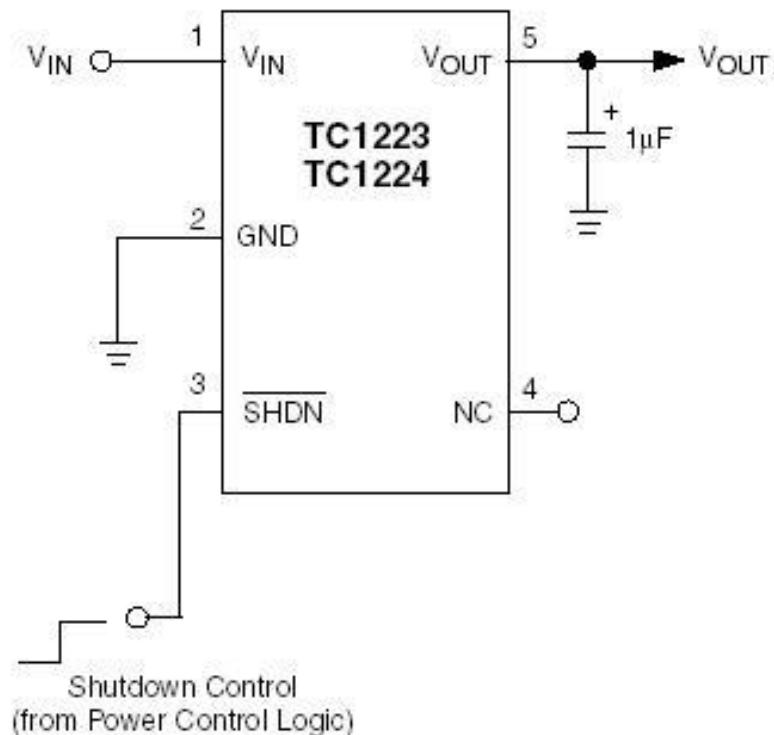
MICROCHIP

TC1224

Online
Datasheet

Features:

- Low Ground Current for Longer Battery Life
- Low Dropout Voltage
- Choice of 50mA (TC1223), 100mA (TC1224) Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin Compatible Upgrades for Bipolar Regulators



HOME

<< BACK



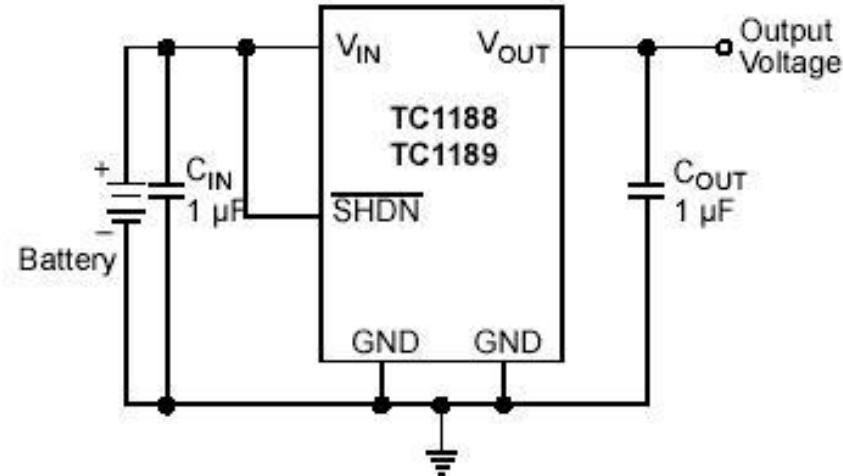
MICROCHIP

TC1188/9

Online
Datasheet

Features:

- Input Voltage Range: 2.7V to 6.0V
- 120mA Output Current
- Low Supply Current: 50 μ A, (typ.)
- Low Dropout Voltage: 110mV (typ.)
@ 100mA
- Fast Turn-On from Shutdown:
140 μ s (typ.)
- Low Output Noise
- Overcurrent and
Overtemperature Protection
- Low Power Shutdown Mode
- Auto Discharge of Output Capacitor
(TC1189)



HOME

<< BACK



MICROCHIP

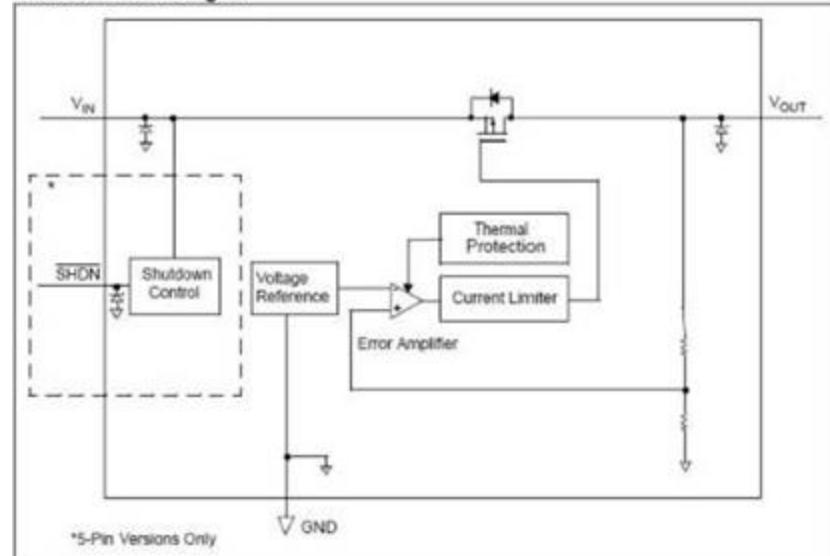
MCP1804

Online
Datasheet

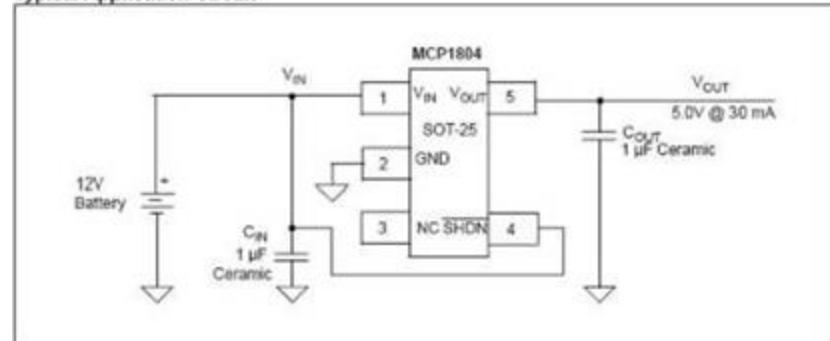
Features:

- 150 mA Output Current
- Low Dropout Voltage, 260mV typ. @ 20mA, VR=3.3V
- 50 μ A Typical Quiescent Current
- 0.01 μ A Typical Shutdown Current
- Input Operating Voltage Range: 2.0V to 28.0V
- Standard Output Voltage Options (1.8V, 2.5V, 3.0V, 3.3V, 5.0V, 10.0V, 12.0V)
- Output Voltage Accuracy: $\pm 2\%$
- Output voltages from 1.8V to 18.0V in 0.1V increments are available upon request
- Stable with Ceramic output capacitors
- Current Limit Protection With Current Foldback
- Shutdown pin
- High PSRR: 50 dB typical @ 1 kHz

Functional Block Diagram



Typical Application Circuit



HOME

<< BACK



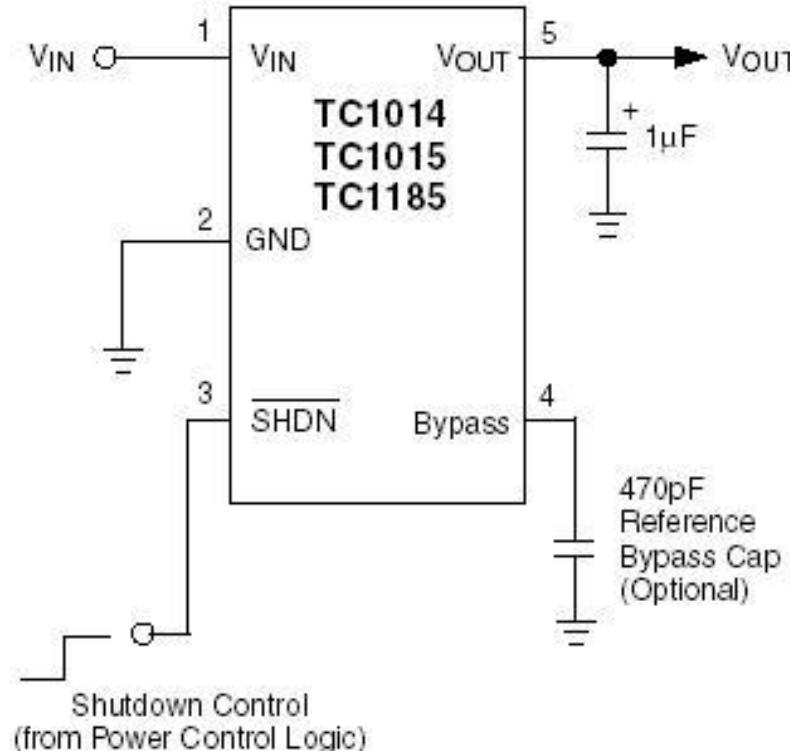
MICROCHIP

TC1185

Online
Datasheet

Features:

- Low Supply Current: 50 μ A (typ.)
- Low Dropout Voltage
- Choice of 50mA (TC1014), 100mA (TC1015) and 150mA (TC1185) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin-Compatible Upgrades for Bipolar Regulators



[TC1187 >>](#)

[TC1186 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

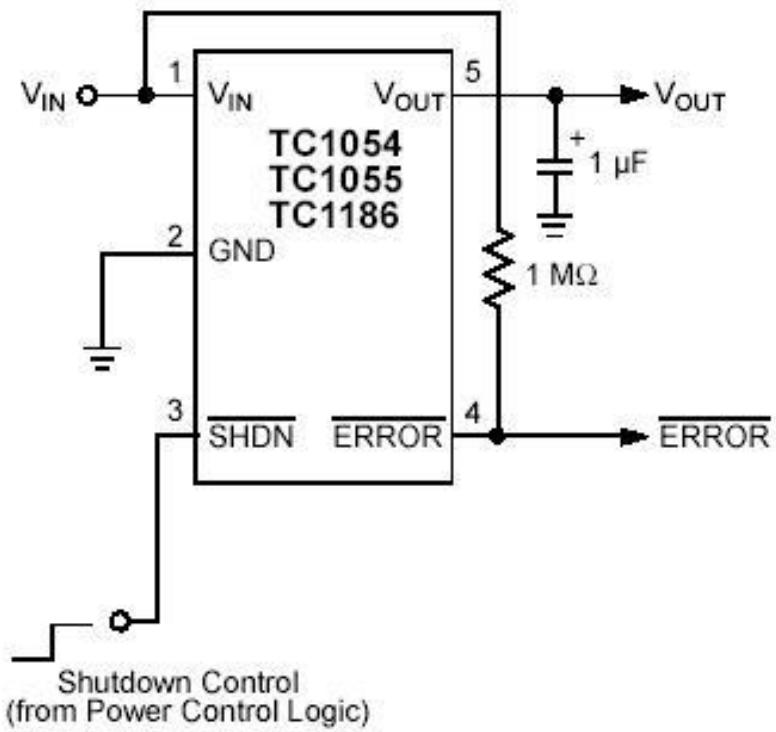
TC1186



Online
Datasheet

Features:

- Low Ground Current for Longer Battery Life
- Low Dropout Voltage
- Choice of 50mA (TC1014), 100mA (TC1015) and 150mA (TC1185) Output
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Error Output Can Be Used as a Low Battery Detector or Microcontroller Reset Generator
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin-Compatible Upgrades for Bipolar Regulators
- Recommended for Automotive Design



[TC1187 >>](#)

[TC1185 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

TC1187

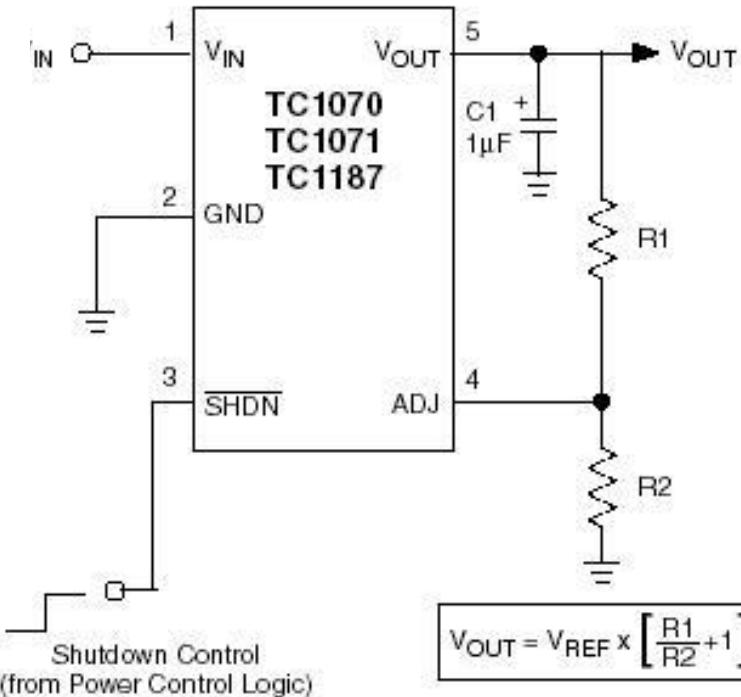


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Automotive Designs

Online
Datasheet

Features:

- 50 μ A Ground Current for Longer Battery Life
- Adjustable Output Voltage
- Very Low Dropout Voltage
- Choice of 50mA (TC1070), 100mA (TC1071) and 150mA (TC1187) Output
- Power-Saving Shutdown Mode
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23 Package
- Pin Compatible with Bipolar Regulators
- Recommended for Automotive Design



[TC1185 >>](#)

[TC1186 >>](#)

[HOME](#)

[<< BACK](#)



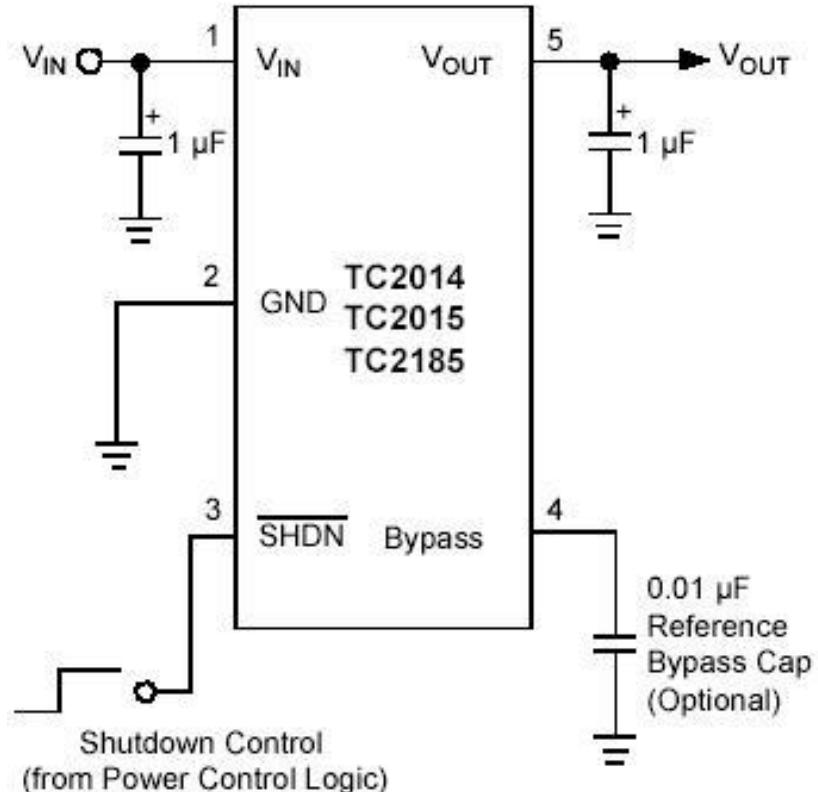
MICROCHIP

TC2185

Online
Datasheet

Features:

- Low Supply Current: 80 μ A (max.)
- Low Dropout Voltage: 140mV (typ.) @ 150mA
- High-Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- Reference Bypass Input for Ultra Low-Noise Operation
- Fast Shutdown Response Time: 60 μ s (typ.)
- Over-current and Over-temperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin-Compatible Upgrades for Bipolar Regulators
- Stable with Ceramic Output Capacitors
- Wide Operating Temperature Range:
-40°C to +125°C



[TC2186 >>](#)

[HOME](#)

[<< BACK](#)



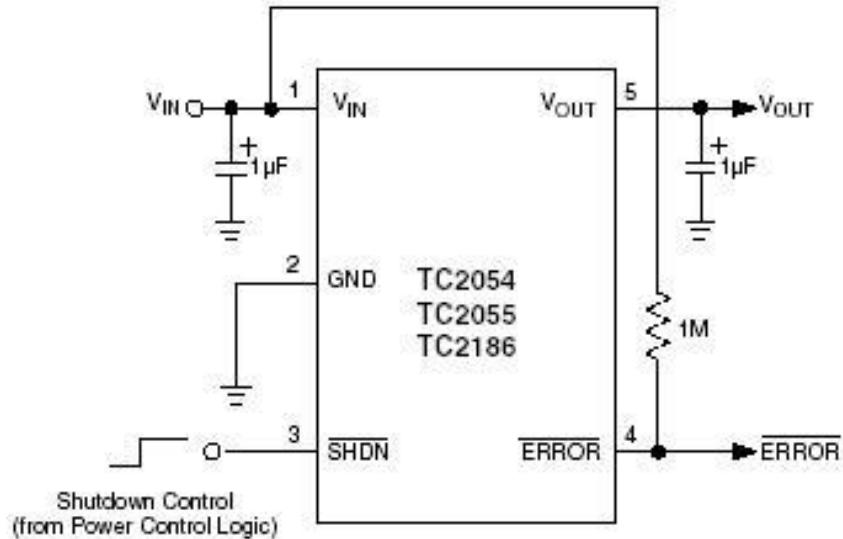
MICROCHIP

TC2186

Online
Datasheet

Features:

- Low Supply Current: 55 μ A (typ.)
- Low Dropout Voltage:
140mV (typ.) @ 150mA
- High Output Voltage Accuracy: $\pm 0.4\%$ (typ.)
- Standard or Custom Output Voltages
- Power-Saving Shutdown Mode
- ERROR Output Can Be Used as a Low Battery Detector or Processor Reset Generator
- Fast Shutdown Response Time: 60 μ s (typ.)
- Overcurrent and Overtemperature Protection
- Space-Saving 5-Pin SOT-23A Package
- Pin Compatible Upgrades for Bipolar Regulators
- Stable with Ceramic Output Capacitors



[TC2185 >>](#)

[HOME](#)

[<< BACK](#)



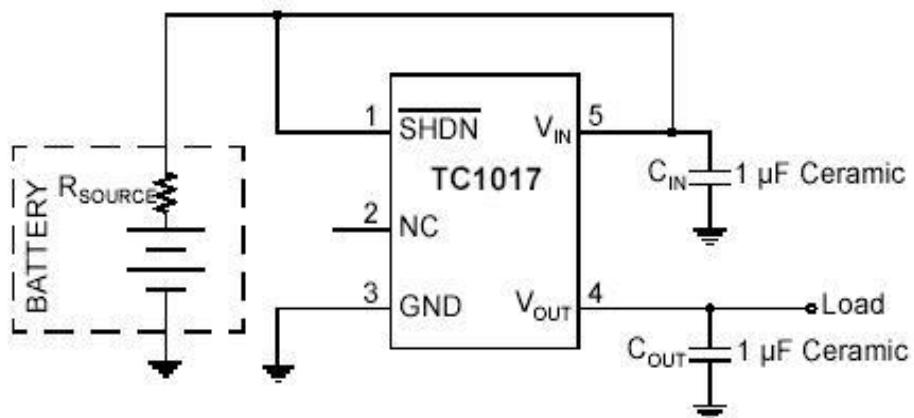
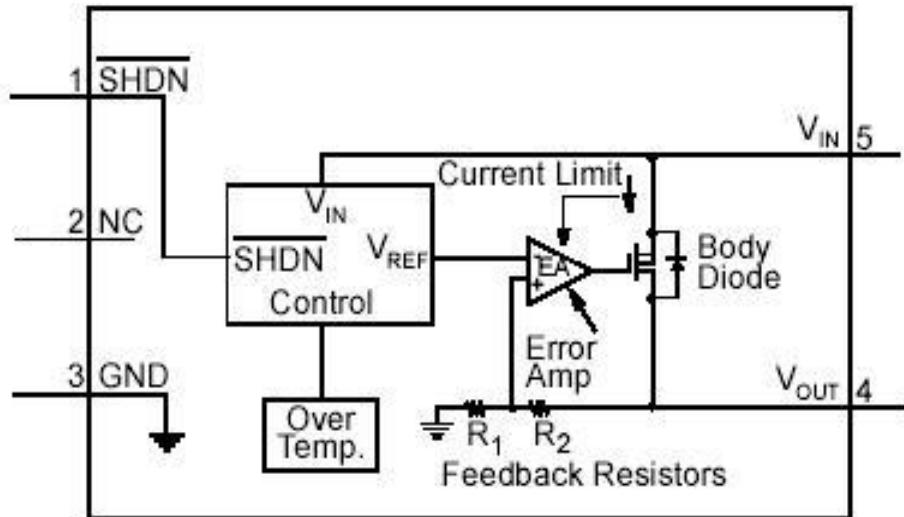
MICROCHIP

TC1017

Online
Datasheet

Features:

- Space Saving 5-Pin SC-70 and SOT-23 Packages
- Low Operating Current: $53\mu\text{A}$ (typ.)
Shutdown Mode: $0.05\mu\text{A}$ (typ.)
- High Output Voltage Accuracy: $\pm 0.5\%$ (typ.)
- Very Low Dropout Voltage
- Rated 150mA Output Current
- Wake-Up Time from SHDN: $10\mu\text{s}$ (typ.)
- Overcurrent and Overtemperature Protection
- Pin Compatible Upgrades for Bipolar Regulators
- Requires Only $1\mu\text{F}$ Ceramic Output Capacitance



[HOME](#)

[<< BACK](#)



MICROCHIP

TC1017

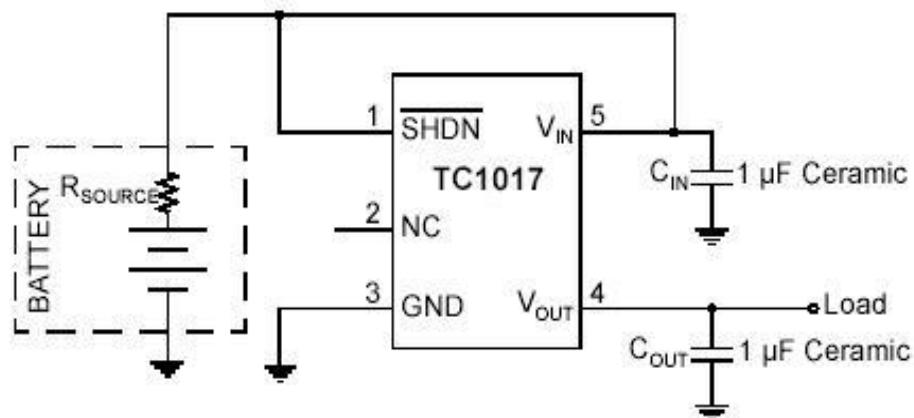
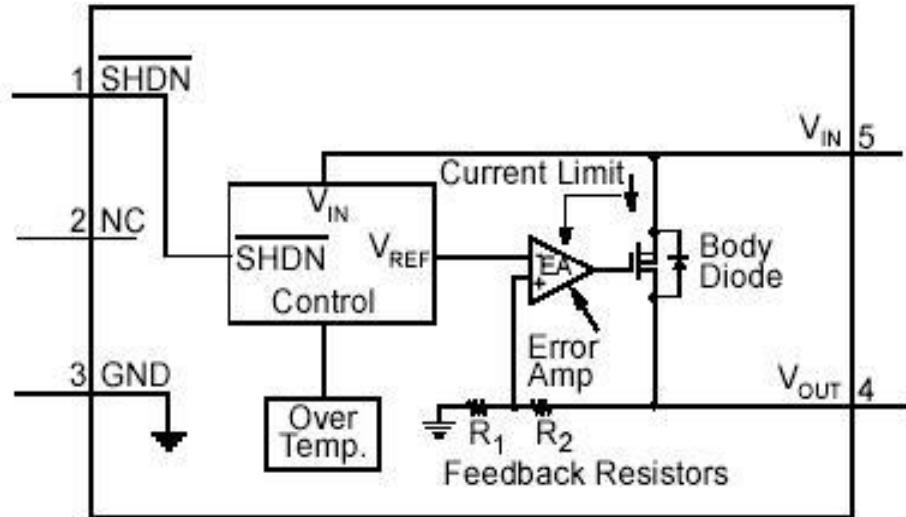


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Automotive Designs

Online
Datasheet

Features:

- Space Saving 5-Pin SC-70 and SOT-23 Packages
- Low Operating Current: $53\mu\text{A}$ (typ.)
Shutdown Mode: $0.05\mu\text{A}$ (typ.)
- High Output Voltage Accuracy: $\pm 0.5\%$ (typ.)
- Very Low Dropout Voltage
- Rated 150mA Output Current
- Wake-Up Time from SHDN: $10\mu\text{s}$ (typ.)
- Overcurrent and Overtemperature Protection
- Pin Compatible Upgrades for Bipolar Regulators
- Requires Only $1\mu\text{F}$ Ceramic Output Capacitance
- Recommended for Automotive Design



[HOME](#)

[<< BACK](#)



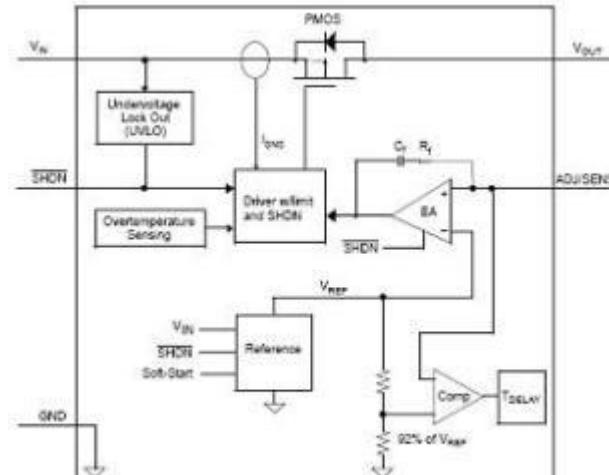
MICROCHIP

MCP1824/S

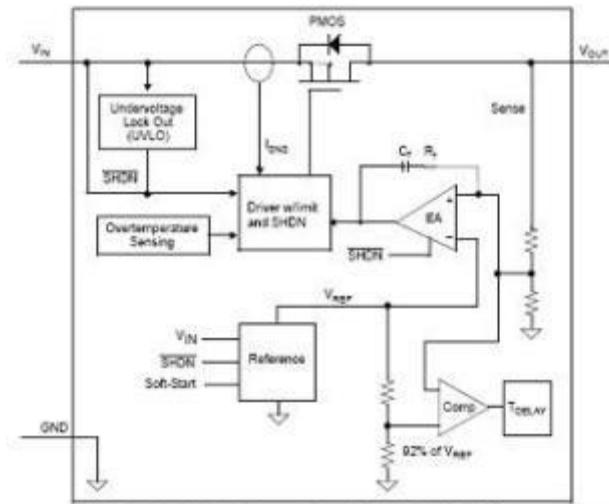
Online
Datasheet

Features:

- 300mA Output Current Capability
- Input Operating Voltage Range: 2.1V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (MCP1824 only)
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 200mV (typ.) @ 300mA
- Typical Output Voltage Tolerance: 0.4%
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast Response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (MCP1824 only)
- Fixed Delay on Power Good Output (MCP1824 only)
- Short Circuit Current Limiting and Overtemperature Protection
- 5-Lead Plastic SOT-223, SOT-23 Package Options (MCP1824)
- 3-Lead Plastic SOT-223 Package Option (MCP1824S)



Functional Block Diagram - Adjustable Output (MCP1824)



Functional Block Diagram - Fixed Output (MCP1824S)

HOME

<< BACK



MICROCHIP

MCP1824/S

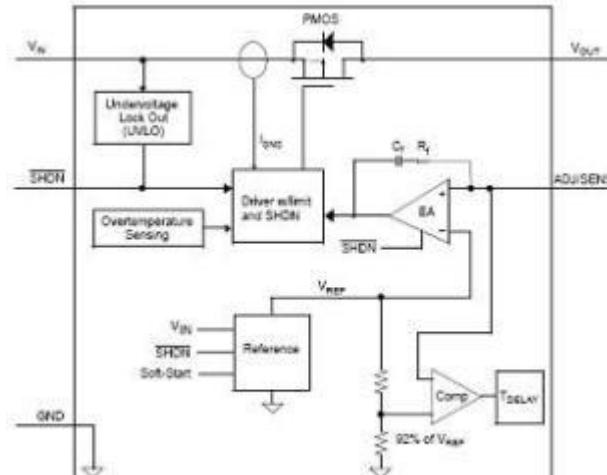


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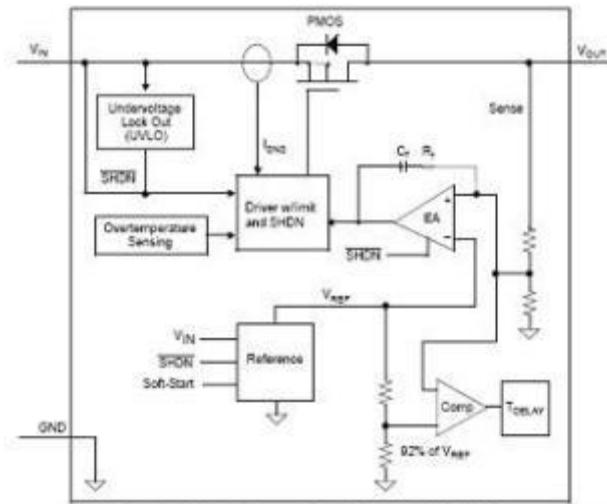
Online
Datasheet

Features:

- 300mA Output Current Capability
- Input Operating Voltage Range: 2.1V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (MCP1824 only)
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 200mV (typ.) @ 300mA
- Typical Output Voltage Tolerance: 0.4%
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast Response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (MCP1824 only)
- Fixed Delay on Power Good Output (MCP1824 only)
- Short Circuit Current Limiting and Overtemperature Protection
- 5-Lead Plastic SOT-223, SOT-23 Package Options (MCP1824)
- 3-Lead Plastic SOT-223 Package Option (MCP1824S)
- Recommended for Automotive Design



Functional Block Diagram - Adjustable Output (MCP1824)



Functional Block Diagram - Fixed Output (MCP1824S)

HOME

<< BACK



MICROCHIP

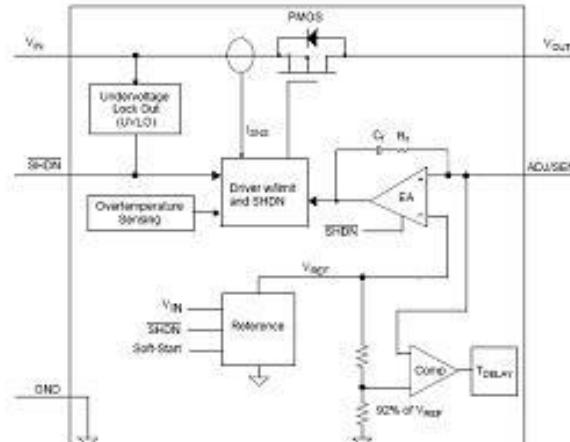
MCP1825/S



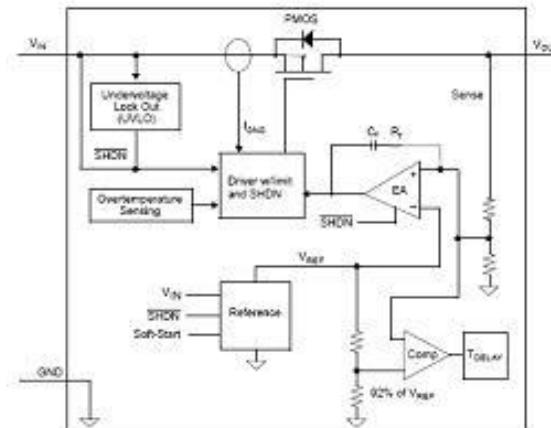
Online
Datasheet

Features:

- 500mA Output Current Capability
- Input Operating Voltage Range: 2.1V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (**MCP1825 only**)
- Standard Fixed Output Voltages: 0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 210mV (typ.) at 500mA
- Typical Output Voltage Tolerance: 0.5%
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (**MCP1825 only**)
- Fixed Delay on Power Good Output (**MCP1825 only**)
- Short Circuit Current Limiting and Overtemperature Protection
- TO-263-5 (DDPAK-5), TO-220-5, SOT-223-5 Package Options (**MCP1825**)
- TO-263-3 (DDPAK-3), TO-220-3, SOT-223-3 Package Options (**MCP1825S**)
- Recommended for Automotive Design



Functional Block Diagram - Adjustable Output



Functional Block Diagram - Fixed Output (3-Pin)

HOME

<< BACK



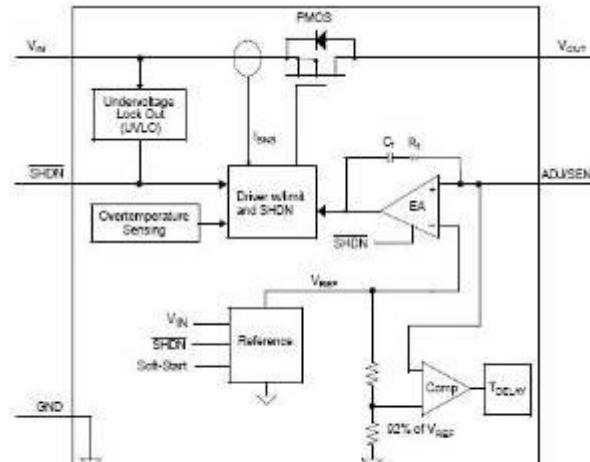
MICROCHIP

MCP1826/S

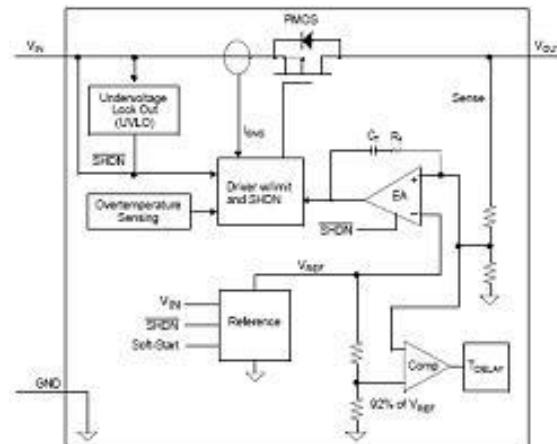
Online
Datasheet

Features:

- 1000mA Output Current Capability
- Input Operating Voltage Range:
2.3V to 6.0V
- Adjustable Output Voltage Range:
0.8V to 5.0V (**MCP1826 only**)
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options
Available Upon Request
- Low Dropout Voltage: 250mV (typ.) @ 1000mA
- Typical Output Voltage Tolerance: 0.5%
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current:
0.1 μ A (typ.) (**MCP1826 only**)
- Fixed Delay on Power Good Output (**MCP1826 only**)
- Short Circuit Current Limiting and
Overtemperature Protection
- TO-263-5 (DDPAK-5), TO-220-5, SOT-223-5
Package Options (**MCP1826**).
- TO-263-3 (DDPAK-3), TO-220-3, SOT-223-3
Package Options (**MCP1826S**).



Functional Block Diagram - Adjustable Output



Functional Block Diagram - Fixed Output (3-Pin)

HOME

<< BACK



MICROCHIP

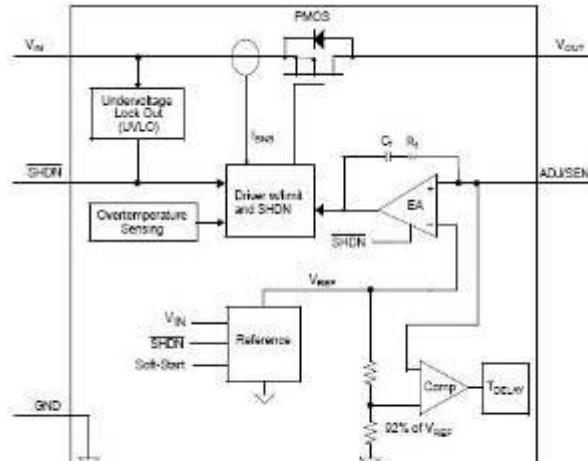
MCP1826/S



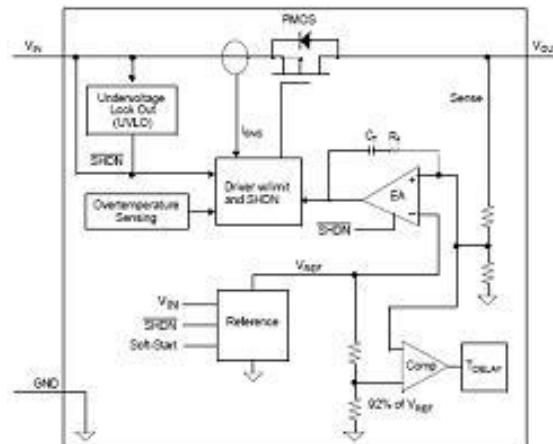
Online
Datasheet

Features:

- 1000mA Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (**MCP1826 only**)
- Standard Fixed Output Voltages: 0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 250mV (typ.) @ 1000mA
- Typical Output Voltage Tolerance: 0.5%
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (**MCP1826 only**)
- Fixed Delay on Power Good Output (**MCP1826 only**)
- Short Circuit Current Limiting and Overtemperature Protection
- TO-263-5 (DDPAK-5), TO-220-5, SOT-223-5 Package Options (**MCP1826**).
- TO-263-3 (DDPAK-3), TO-220-3, SOT-223-3 Package Options (**MCP1826S**).
- Recommended for Automotive Design



Functional Block Diagram - Adjustable Output



Functional Block Diagram - Fixed Output (3-Pin)

HOME

<< BACK



MICROCHIP

MCP1700

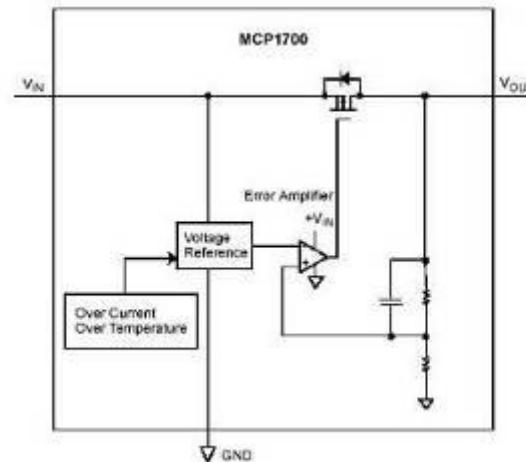
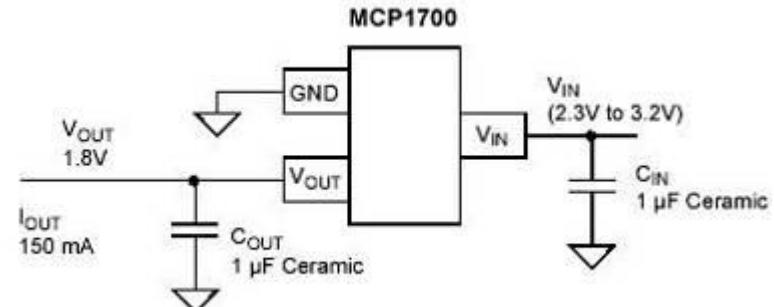


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 1.6 μ A (typ.) Quiescent Current
- Input Operating Voltage Range: 2.3V to 6.0V
- Output Voltage Range: 1.2V to 5.0V
- 250mA Output Current for Output Voltages \geq 2.5V
- 200mA Output Current for Output Voltages $<$ 2.5V
- Low Dropout voltage: 178mV (typ.) @ 250mA for $V_{OUT} = 2.8V$
- 0.4% (typ.) Output Voltage Tolerance
- Stable with 1.0 μ F Ceramic Output Capacitor
- Short Circuit Protection
- Overtemperature Protection
- Recommended for Automotive Design



[HOME](#)

[<< BACK](#)



MICROCHIP

MCP1702

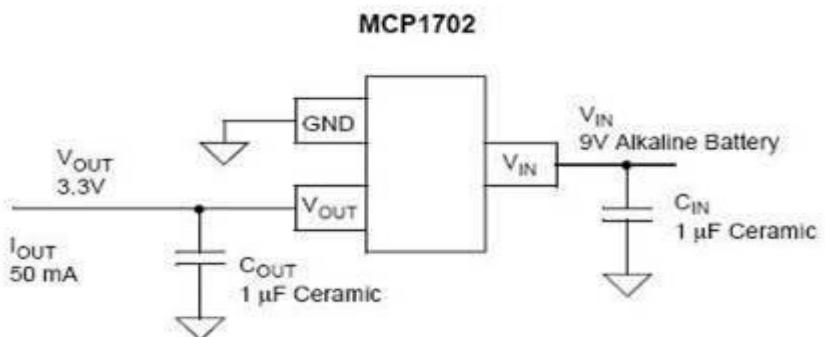
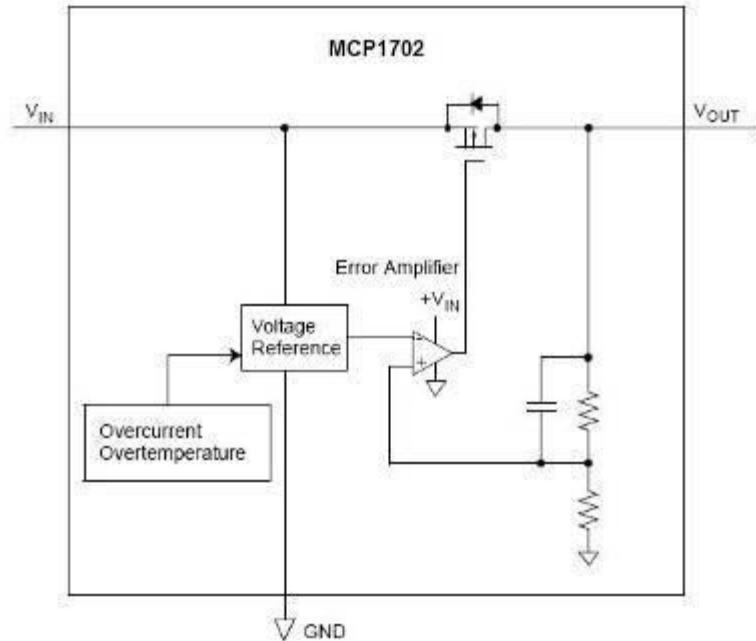


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 2.0 μ A Quiescent Current (typ.)
- Input Operating Voltage Range: 2.7V to 13.2V
- 250mA Output Current for Output Voltages \geq 2.5V
- 200mA Output Current for Output Voltages $<$ 2.5V
- Output voltage range 1.2V to 5.5V in 0.1V increments (50mV increments available upon request)
- Stable with 1.0 μ F to 22 μ F Output Capacitor
- Short-Circuit Protection
- Overtemperature Protection
- Package Options: 3-Pin SOT-23A, 3-Pin SOT-89, TO-92-3
- Recommended for Automotive Design



[HOME](#)

[<< BACK](#)



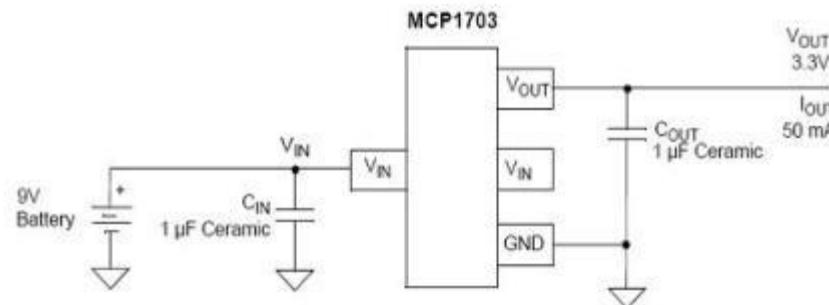
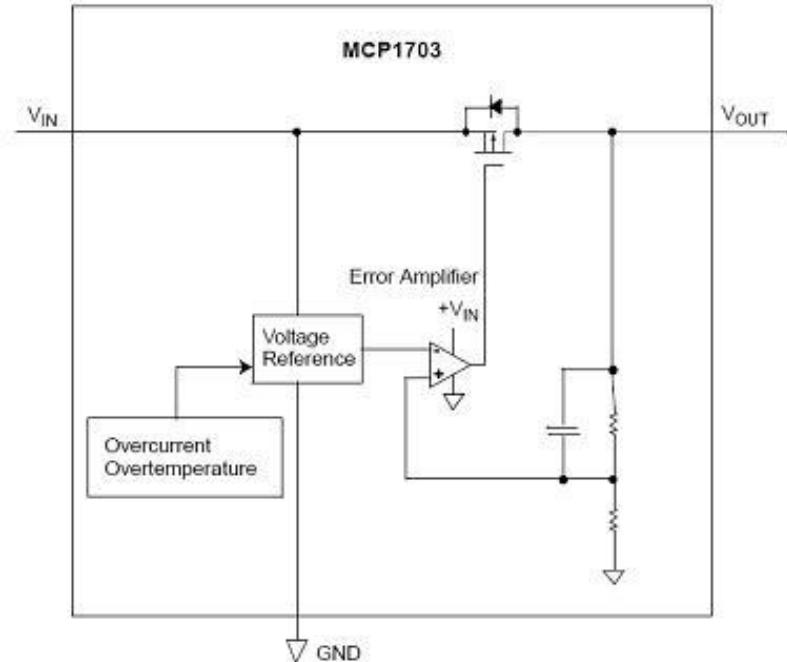
MICROCHIP

MCP1703

Online
Datasheet

Features:

- 2.0 μ A Quiescent Current (typ.)
- Input Operating Voltage Range: 2.7V to 16V
- 250mA Output Current for Output Voltages \geq 2.5V
- 200mA Output Current for Output Voltages $<$ 2.5V
- 0.4% (typ.) Output Voltage Tolerance
- Output voltage range 1.2V to 5.5V in 0.1V increments (50mV increments available upon request)
- Stable with 1.0 μ F to 22 μ F Output Capacitor
- Short-Circuit Protection
- Overtemperature Protection
- Package Options: 3-Pin SOT-23A, 3-Pin SOT-89, TO-92-3, 2x3 DFN



[HOME](#)

[<< BACK](#)



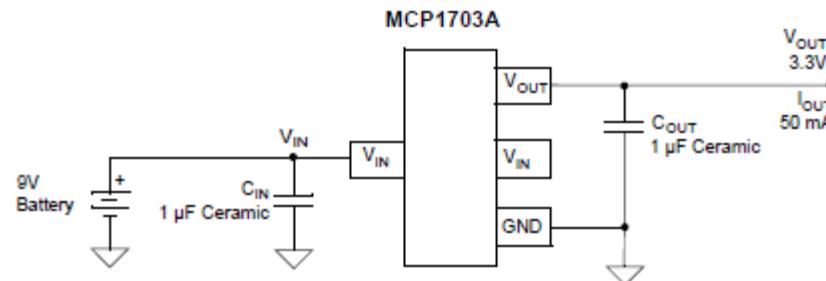
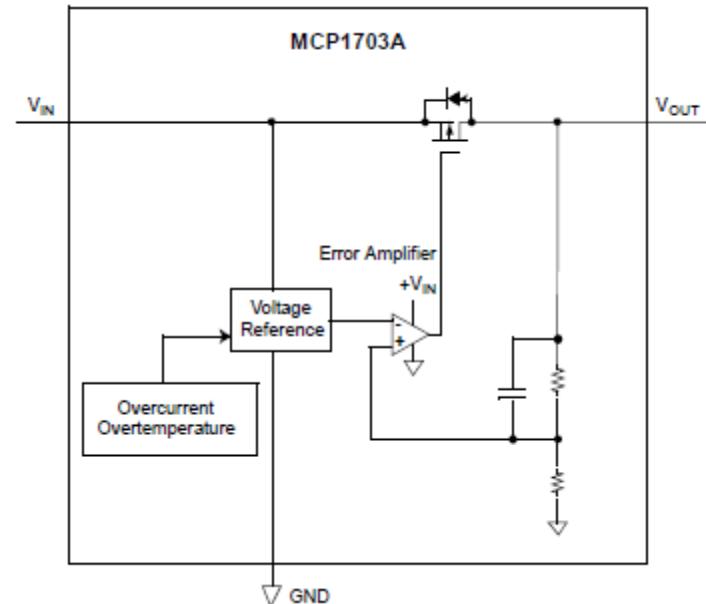
MICROCHIP

MCP1703A

Online
Datasheet

Features:

- 2.0 μ A Quiescent Current (typ.)
- Input Operating Voltage Range: 2.7V to 16V
- 250mA Output Current for Output Voltages \geq 2.5V
- 200mA Output Current for Output Voltages $<$ 2.5V
- 0.4% (typ.) Output Voltage Tolerance
- Output voltage range 1.2V to 5.5V in 0.1V increments (50mV increments available upon request)
- Stable with 1.0 μ F to 22 μ F Output Capacitor
- Short-Circuit Protection
- Overtemperature Protection
- Package Options: 3-Pin SOT-23A, 3-Pin SOT-89, TO-92-3, 2x3 DFN



HOME

<< BACK



MICROCHIP

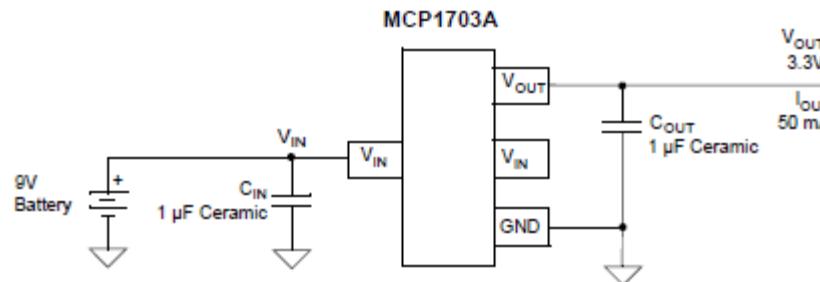
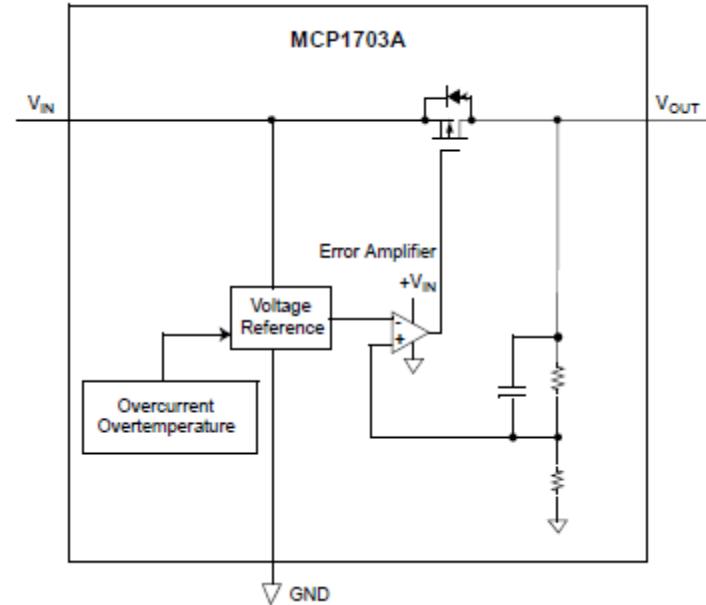
MCP1703A



Online
Datasheet

Features:

- 2.0 μ A Quiescent Current (typ.)
- Input Operating Voltage Range: 2.7V to 16V
- 250mA Output Current for Output Voltages \geq 2.5V
- 200mA Output Current for Output Voltages $<$ 2.5V
- 0.4% (typ.) Output Voltage Tolerance
- Output voltage range 1.2V to 5.5V in 0.1V increments (50mV increments available upon request)
- Stable with 1.0 μ F to 22 μ F Output Capacitor
- Short-Circuit Protection
- Overtemperature Protection
- Package Options: 3-Pin SOT-23A, 3-Pin SOT-89, TO-92-3, 2x3 DFN
- Recommended for Automotive Design



HOME

<< BACK



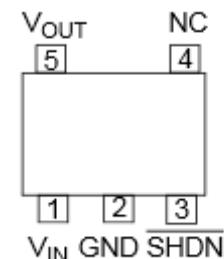
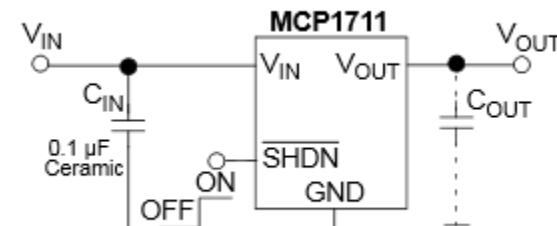
MICROCHIP

MCP1711

Online
Datasheet

Features:

- Ultra-Low Quiescent Current: 600 nA (typ)
- Shutdown Supply Current: 10 nA (typ)
- Input Operating Voltage Range: 1.4V to 6.0V
- 150 mA Output Current Capability
- Output Capacitor:
 - Low Equivalent Series Resistance (ESR)
 - or Capacitorless Compatible
- Low Dropout Voltage:
450 mV Maximum at 200 mA
- Stable with 1.0 μ F Ceramic Output Capacitor
- Protection Circuits:
 - Current Limiter, Short Circuit, Foldback
- Space Saving 4L 1x1 DFN and 5L SOT-23



[HOME](#)

[<< BACK](#)



MICROCHIP

MCP1754/S

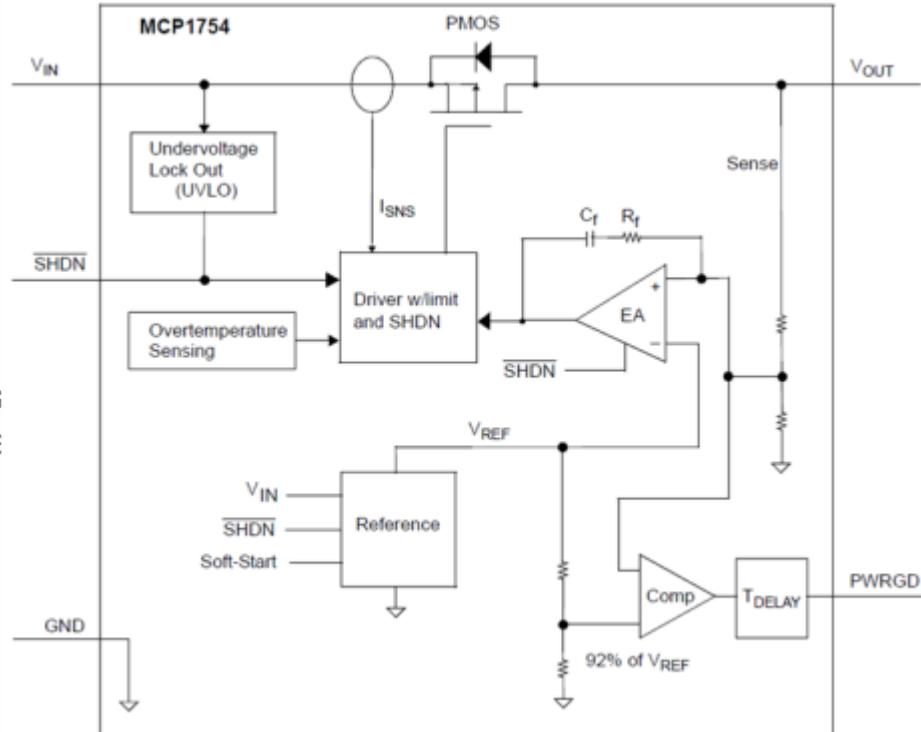
Online
Datasheet

Features:

- High PSRR: >70 dB @ 1 kHz typical
- 56.0 μ A Typical Quiescent Current
- Input Operating Voltage Range: 3.6V to 16.0V
- 150 mA Output Current
- Low Dropout Voltage, 300 mV Typical @ 150 mA
- 0.4% Typical Output Voltage Tolerance
- Standard Output Voltage Options (1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 4.0V, 5.0V)
- Output Voltage Range 1.8V to 5.5V in 0.1V increments
- Output Voltage Tolerances of $\pm 2.0\%$ Over Temperature
- Stable with Minimum 1.0 μ F Output Capacitance
- Power Good Output
- Shutdown Input
- True Current Foldback Protection
- Short-Circuit Protection
- Overtemperature Protection

Package Options:

- 3-pin SOT-23A, SOT-89, SOT-223, 2x3 DFN-8 (MCP1754S)
- 5-pin SOT-23, SOT-223, and 2x3 DFN-8



HOME

<< BACK



MICROCHIP

MCP1754/S



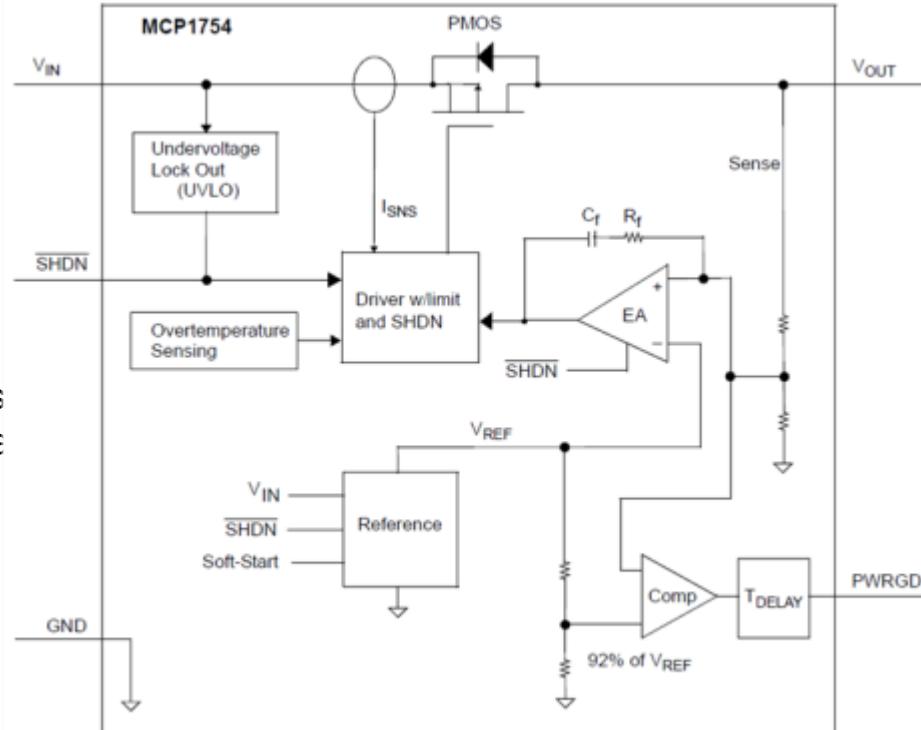
Online
Datasheet

Features:

- High PSRR: >70 dB @ 1 kHz typical
- 56.0 μ A Typical Quiescent Current
- Input Operating Voltage Range: 3.6V to 16.0V
- 150 mA Output Current
- Low Dropout Voltage, 300 mV Typical @ 150 mA
- 0.4% Typical Output Voltage Tolerance
- Standard Output Voltage Options (1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 4.0V, 5.0V)
- Output Voltage Range 1.8V to 5.5V in 0.1V increments
- Output Voltage Tolerances of $\pm 2.0\%$ Over Temperature
- Stable with Minimum 1.0 μ F Output Capacitance
- Power Good Output
- Shutdown Input
- True Current Foldback Protection
- Short-Circuit Protection
- Overtemperature Protection

Package Options:

- 3-pin SOT-23A, SOT-89, SOT-223, 2x3 DFN-8 (MCP1754S)
- 5-pin SOT-23, SOT-223, and 2x3 DFN-8
- Recommended for Automotive Design



HOME

<< BACK



MICROCHIP

MCP1755/S

Online
Datasheet

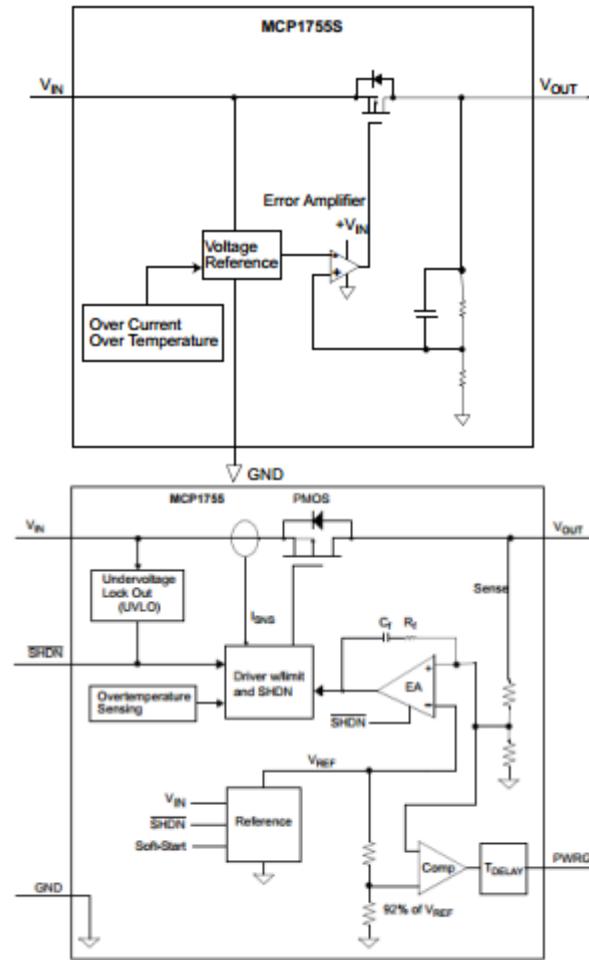
Features:

- High PSRR: >70 dB @ 1 kHz typical
- 68.0 μ A Typical Quiescent Current
- Input Operating Voltage Range: 3.6V to 16.0V
- 300 mA Output Current
- Low Dropout Voltage, 300 mV Typical @ 300 mA
- 0.85% Typical Output Voltage Tolerance
- Standard Output Voltage Options (1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 4.0V, 5.0V)
- Output Voltage Range 1.8V to 5.5V in 0.1V increments
- Output Voltage Tolerances of $\pm 2.0\%$ Over Temperature
- Stable with Minimum 1.0 μ F Output Capacitance
- Power Good Output
- Shutdown Input
- True Current Foldback Protection
- Short-Circuit Protection
- Overtemperature Protection

Package Options:

3-pin SOT-223, 8-lead 2x3 (MCP1755S)

5-pin SOT-23, SOT-223, and 8-lead 2x3 DFN (MCP1755)



HOME

<< BACK



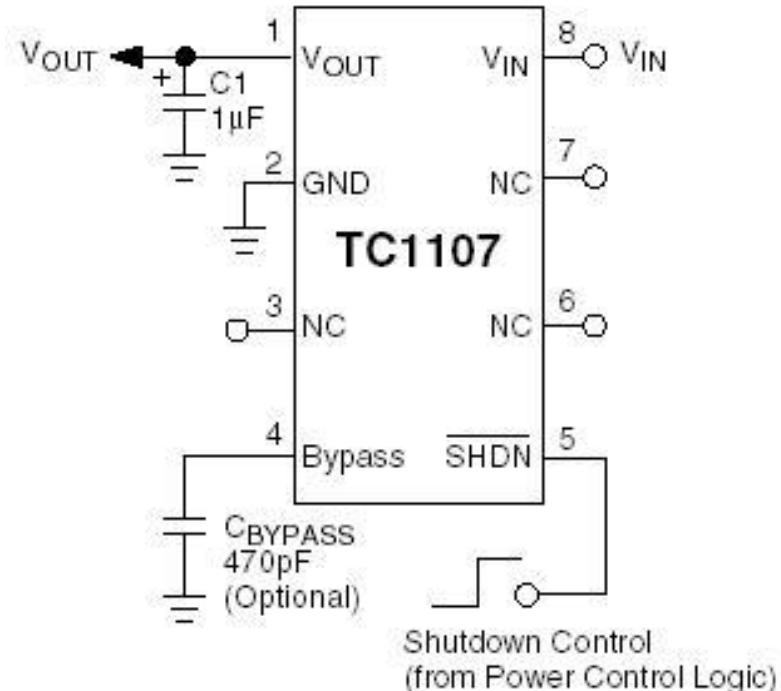
MICROCHIP

TC1107

Online
Datasheet

Features:

- Extremely Low Supply Current: 50 μ A (typ.)
- Very Low Dropout Voltage
- 300mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Bypass Input for Ultra-Quiet Operation
- Over-Current and Over-Temperature Protection
- Space Saving MSOP Package Option



[TC1108 >>](#)

[HOME](#)

[<< BACK](#)



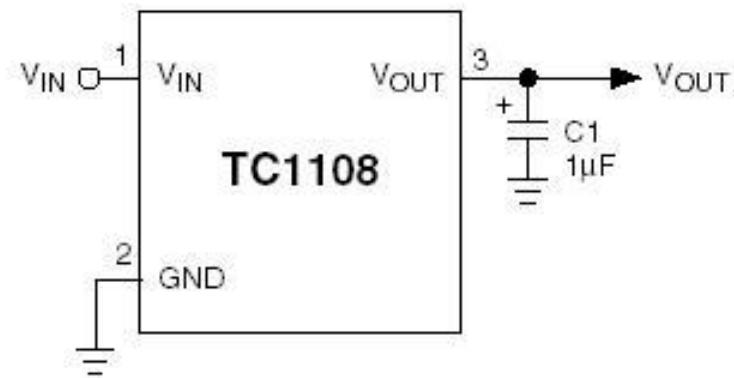
MICROCHIP

TC1108

Online
Datasheet

Features:

- Extremely Low Supply Current: 50 μ A (typ.)
- Very Low Dropout Voltage
- 300mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and Overtemperature Protection



[TC1107 >>](#)

[HOME](#)

[<< BACK](#)



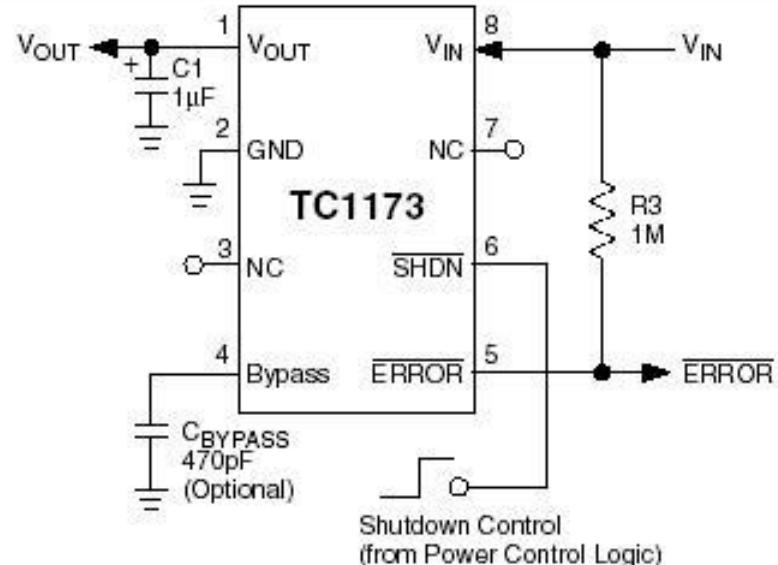
MICROCHIP

TC1173

Online
Datasheet

Features:

- Extremely Low Supply Current
- Very Low Dropout Voltage
- 300mA Output Current
- ERROR Output can be used as a Low Battery Detector or Processor Reset Generator
- Power Saving Shutdown Mode
- Bypass Input for Ultra-Quiet Operation
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and Overtemperature Protection
- Space Saving MSOP Package Option



[TC1174 >>](#)

[HOME](#)

[<< BACK](#)



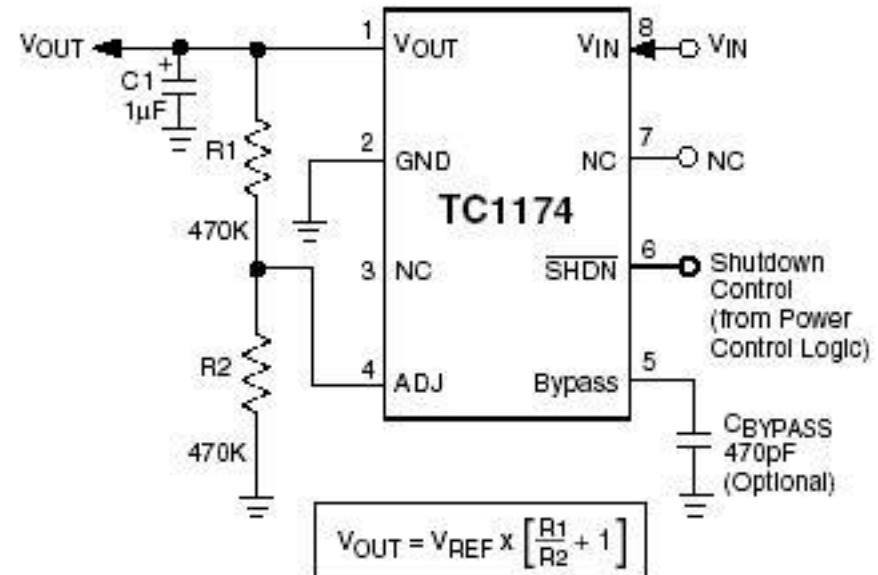
MICROCHIP

TC1174

Online
Datasheet

Features:

- Extremely Low Supply Current: 50µA (typ.)
- Very Low Dropout Voltage
- 300mA Output Current
- Adjustable Output Voltage
- Power Saving Shutdown Mode
- Bypass Input for Ultra-Quiet Operation
- Overcurrent and Overtemperature Protection
- Space Saving MSOP Package Option



[TC1173 >>](#)

[HOME](#)

[<< BACK](#)



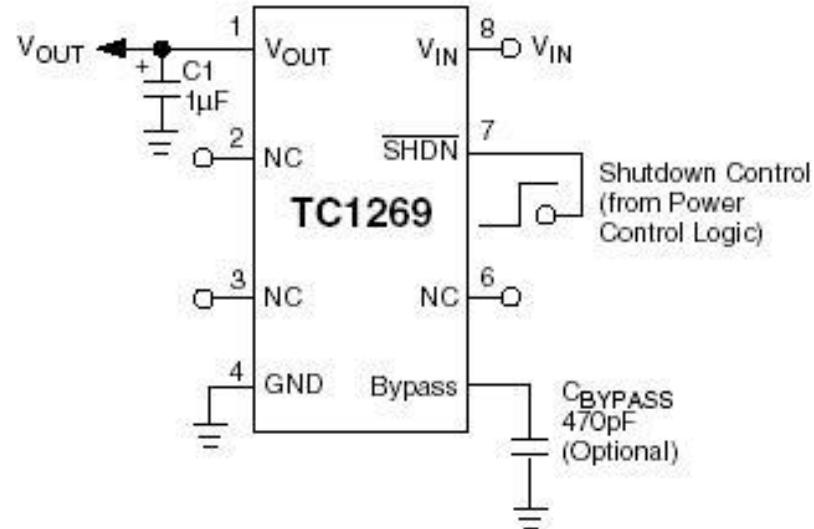
MICROCHIP

TC1269

Online
Datasheet

Features:

- Very Low Ground Current for Longer Battery Life
- Very Low Dropout Voltage
- 300mA Output Circuit
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Power Saving Shutdown Mode
- Bypass Input for Ultra-Quiet Operation
- Over Current and Over Temperature Protection
- Space-Saving MSOP Package



[HOME](#)

[<< BACK](#)



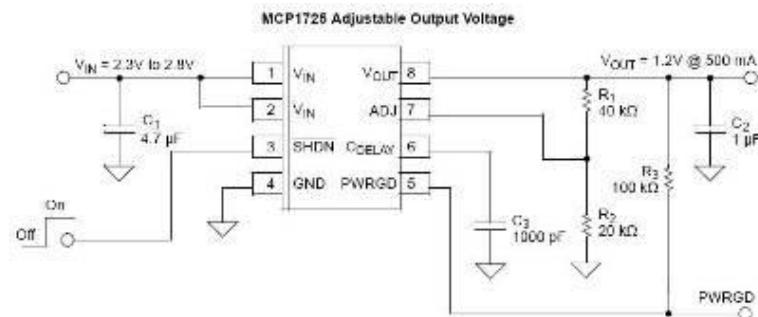
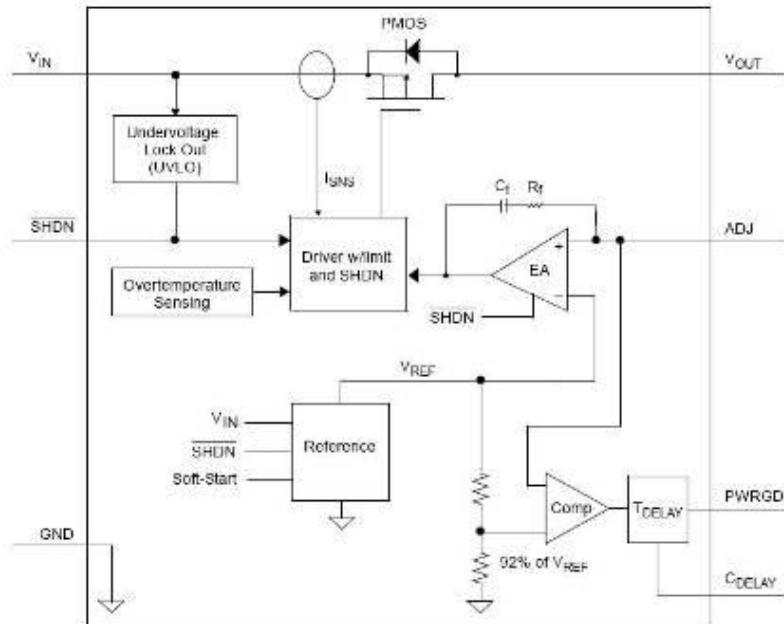
MICROCHIP

MCP1725

Online
Datasheet

Features:

- 500mA Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 210mV (typ.) @ 500mA
- Output Voltage Tolerance: 0.5% (typ.)
- Stable with 1.0 μ F Ceramic Output Capacitor
- Low Supply Current: 120 μ A (typ.)
- Adjustable Delay on Power Good Output
- Short Circuit Current Limiting and Overtemperature Protection
- Small Packaging: 2x3 DFN-8 and SOIC-8 Packages



[HOME](#)

[<< BACK](#)



MICROCHIP

MCP1725

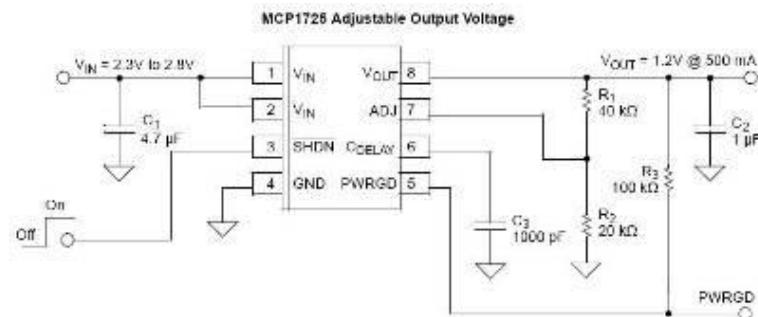
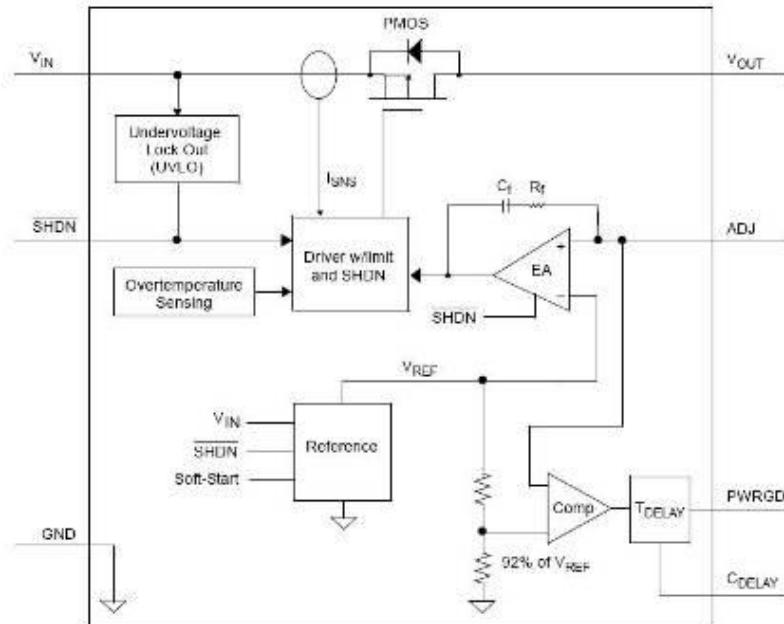


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 500mA Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 210mV (typ.) @ 500mA
- Output Voltage Tolerance: 0.5% (typ.)
- Stable with 1.0 μ F Ceramic Output Capacitor
- Low Supply Current: 120 μ A (typ.)
- Adjustable Delay on Power Good Output
- Short Circuit Current Limiting and Overtemperature Protection
- Small Packaging: 2x3 DFN-8 and SOIC-8 Packages
- Recommended for Automotive Design



HOME

<< BACK



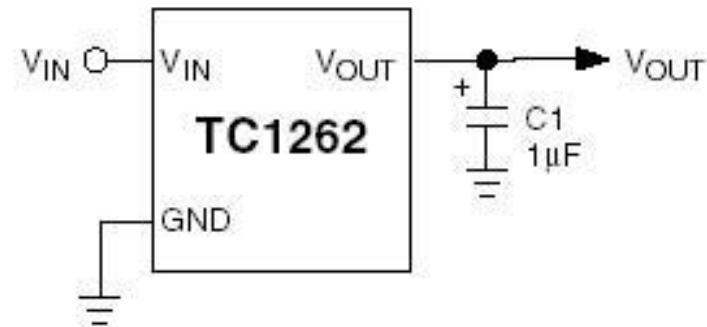
MICROCHIP

TC1262

Online
Datasheet

Features:

- Very Low Dropout Voltage
- 500mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and Overtemperature Protection



[TC1263 >>](#)

[HOME](#)

[<< BACK](#)



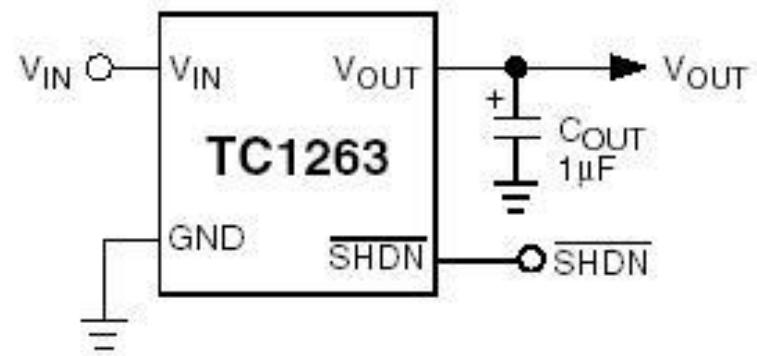
MICROCHIP

TC1263

Online
Datasheet

Features:

- Very Low Dropout Voltage
- 500mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and Overtemperature Protection
- SHDN Input for Active Power Management
- ERROR Output can be used as a Low Battery Detector (SOIC only)



[TC1262 >>](#)

[HOME](#)

[<< BACK](#)



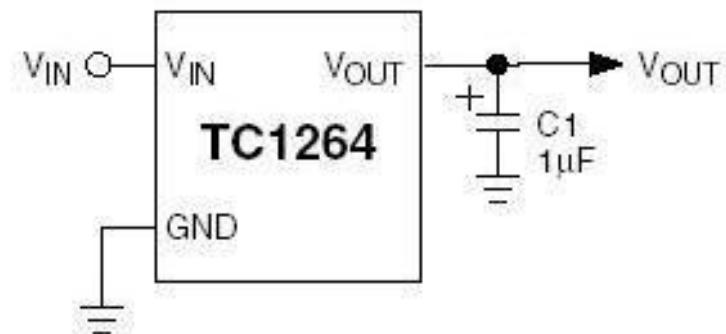
MICROCHIP

TC1264

Online
Datasheet

Features:

- Very Low Dropout Voltage
- 800mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and
Overtemperature Protection



[TC1265 >>](#)

[HOME](#)

[<< BACK](#)



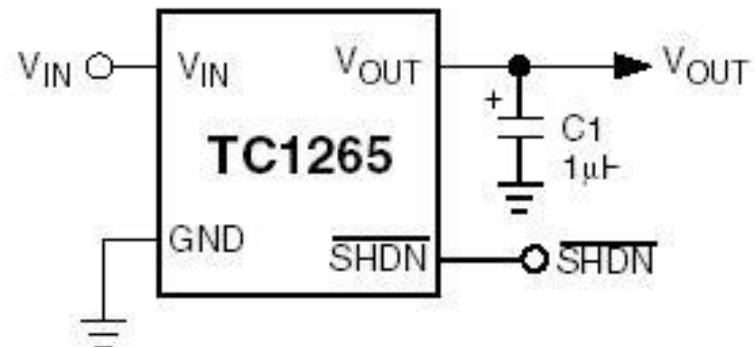
MICROCHIP

TC1265

Online
Datasheet

Features:

- Very Low Dropout Voltage
- 800mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and Overtemperature Protection
- SHDN Input for Active Power Management
- ERROR Output to Detect Low Battery (SOIC only)



[TC1264 >>](#)

[HOME](#)

[<< BACK](#)



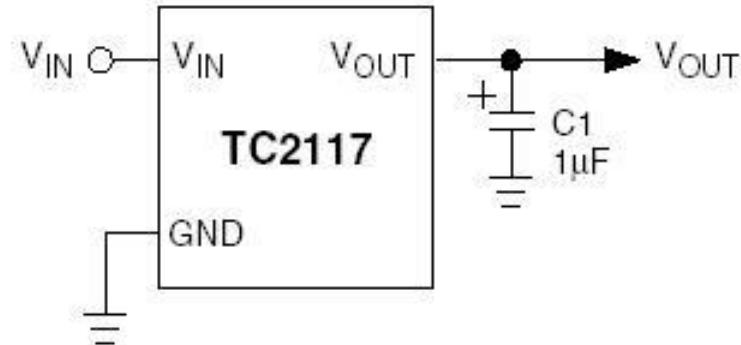
MICROCHIP

TC2117

Online
Datasheet

Features:

- Very Low Dropout Voltage
- 800mA Output Current
- High Output Voltage Accuracy
- Standard or Custom Output Voltages
- Overcurrent and
Overtemperature Protection
- Space Saving SOT-223 Package
- Fixed Output Voltages:
1.8V, 2.5V, 3.0V, 3.3V



HOME

<< BACK



MICROCHIP

MCP1726

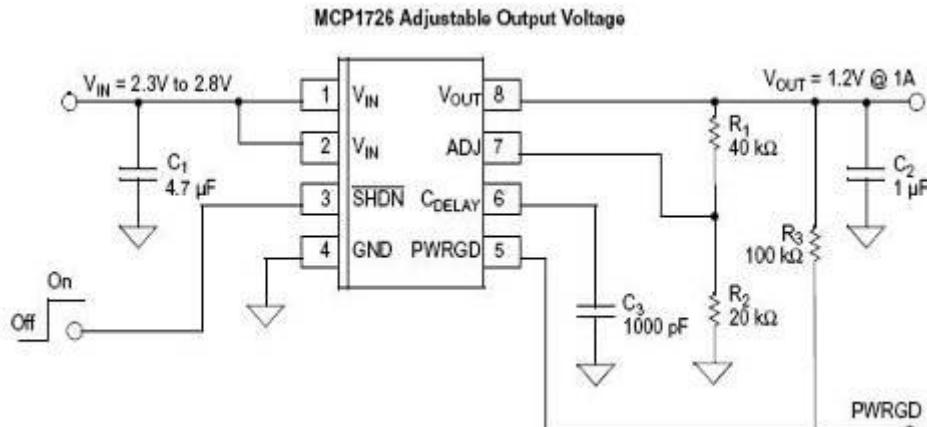
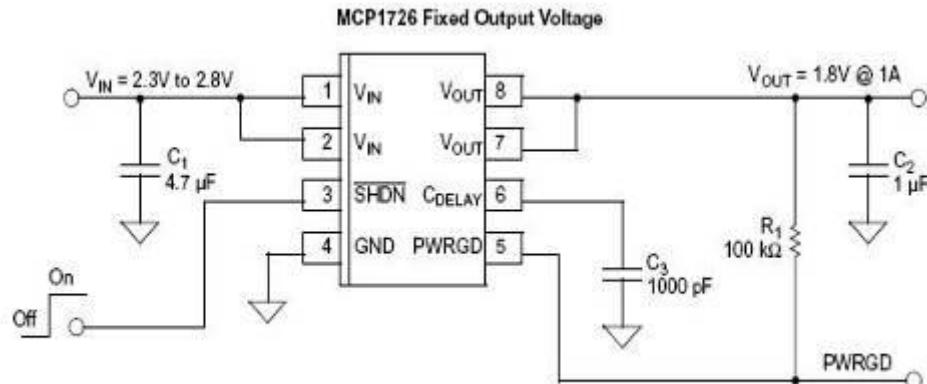


Recommended for
Automotive Designs

Online
Datasheet

Features:

- 1A Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V
- Standard Fixed Output Voltages: 0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Low Dropout Voltage: 220mV (typ.) @ 1A
- Output Voltage Tolerance: 0.4% (typ.)
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 140 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.)
- Adjustable Delay on Power Good Output
- Short Circuit Current Limiting and Overtemperature Protection
- 3x3 DFN-8 and SOIC-8 Package Options
- Recommended for Automotive Design



[HOME](#)

[<< BACK](#)



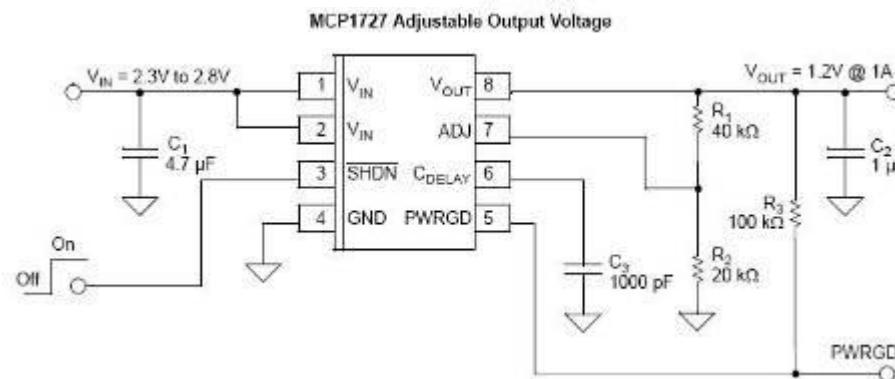
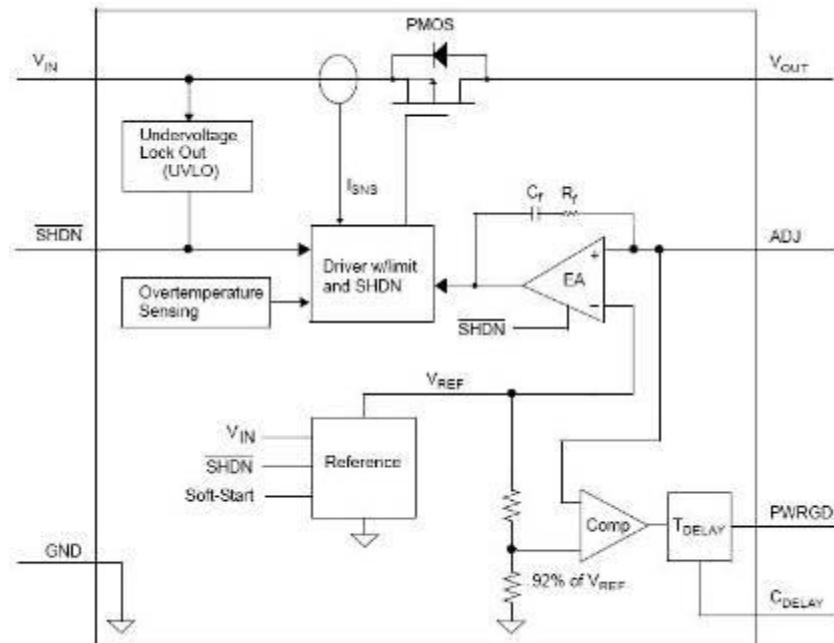
MICROCHIP

MCP1727

Online
Datasheet

Features:

- Up to 1.5A output load current
- Low Dropout Voltage: 330mV (typ.) @ 1.5A
- Output voltage from 0.8V to 5.0V, both fixed and adjustable
- Stable with 1.0 μ F ceramic output capacitor
- Output Voltage Tolerance: 0.5% (typ.)
- Power good output with adjustable delay
- Low supply current: 140 μ A (typ.)
- Low shutdown current: 0.1 μ A (typ.)
- Short Circuit Current Limiting and Overtemperature Protection
- DFN-8 3x3 and SOIC-8 Pb-free packages



[HOME](#)

[<< BACK](#)



MICROCHIP

MCP1727

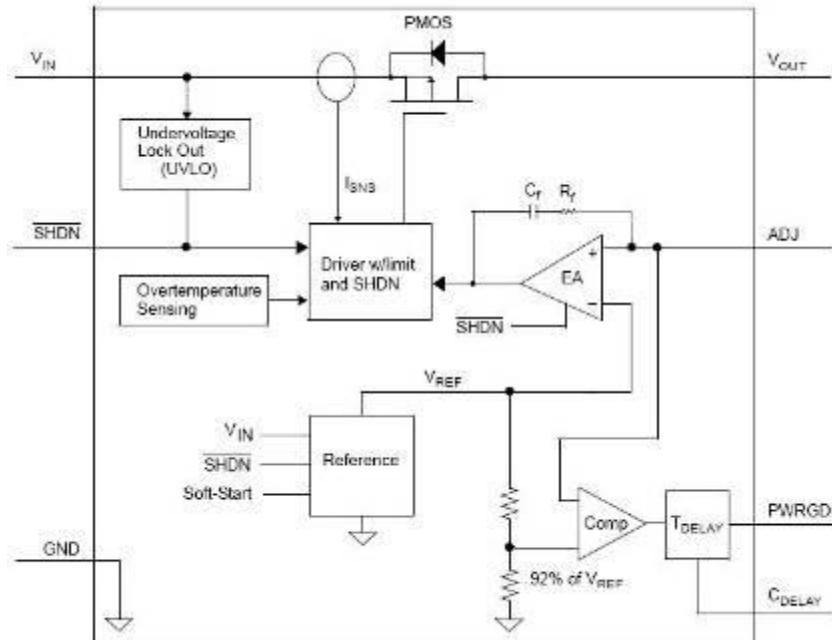


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Automotive Designs

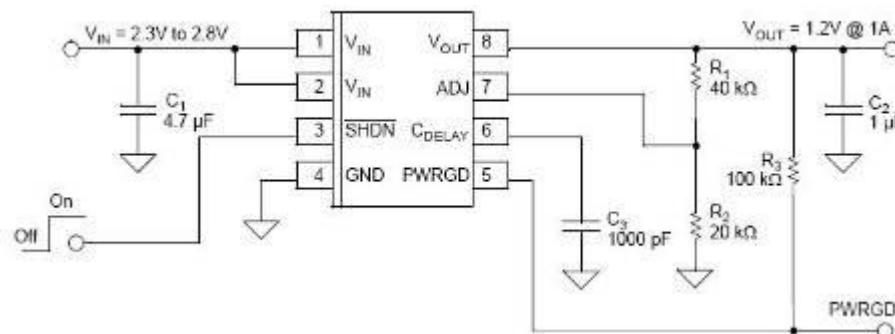
Online
Datasheet

Features:

- Up to 1.5A output load current
- Low Dropout Voltage: 330mV (typ.) @ 1.5A
- Output voltage from 0.8V to 5.0V, both fixed and adjustable
- Stable with 1.0 μ F ceramic output capacitor
- Output Voltage Tolerance: 0.5% (typ.)
- Power good output with adjustable delay
- Low supply current: 140 μ A (typ.)
- Low shutdown current: 0.1 μ A (typ.)
- Short Circuit Current Limiting and Overtemperature Protection
- DFN-8 3x3 and SOIC-8 Pb-free packages
- Recommended for Automotive Design



MCP1727 Adjustable Output Voltage



HOME

<< BACK



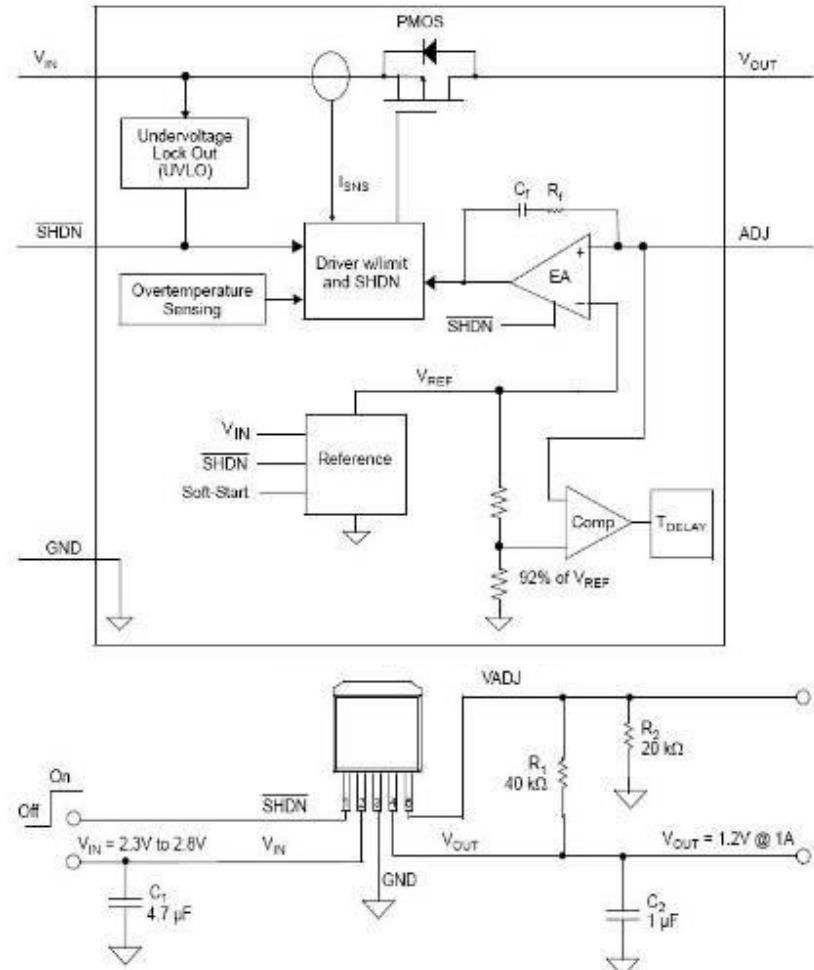
MICROCHIP

MCP1827/S

Online
Datasheet

Features:

- 1.5A Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (MCP1827 only)
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 330mV (typ.) @ 1.5A
- Output Voltage Tolerance: 0.5% (typ.)
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (MCP1827 only)
- Fixed Delay on Power Good Output (MCP1827 only)
- Short Circuit Current Limiting and Overtemperature Protection
- 5-Lead Plastic DDPAK, 5-Lead TO-220 Package Options (MCP1827)
- 3-Lead Plastic DDPAK, 3-Lead TO-220 Package Options (MCP1827S)



HOME

<< BACK



MICROCHIP

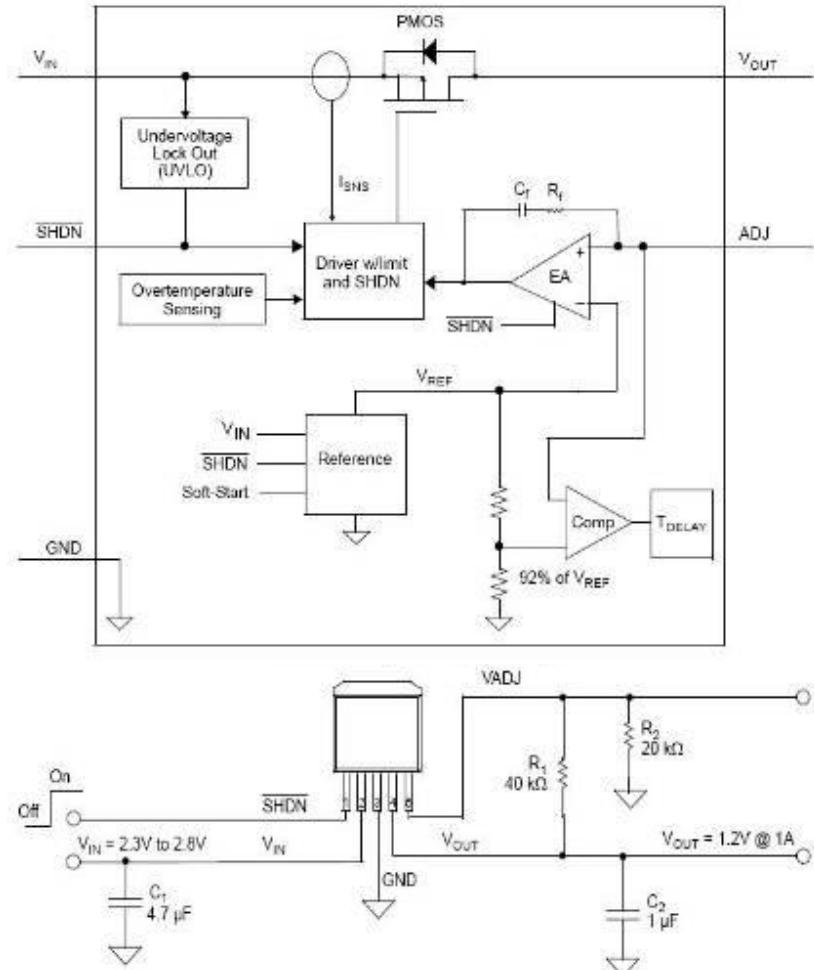
MCP1827/S



Online
Datasheet

Features:

- 1.5A Output Current Capability
- Input Operating Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage Range: 0.8V to 5.0V (MCP1827 only)
- Standard Fixed Output Voltages:
0.8V, 1.2V, 1.8V, 2.5V, 3.0V, 3.3V, 5.0V
- Other Fixed Output Voltage Options Available Upon Request
- Low Dropout Voltage: 330mV (typ.) @ 1.5A
- Output Voltage Tolerance: 0.5% (typ.)
- Stable with 1.0 μ F Ceramic Output Capacitor
- Fast response to Load Transients
- Low Supply Current: 120 μ A (typ.)
- Low Shutdown Supply Current: 0.1 μ A (typ.) (MCP1827 only)
- Fixed Delay on Power Good Output (MCP1827 only)
- Short Circuit Current Limiting and Overtemperature Protection
- 5-Lead Plastic DDPAK, 5-Lead TO-220 Package Options (MCP1827)
- 3-Lead Plastic DDPAK, 3-Lead TO-220 Package Options (MCP1827S)
- Recommended for Automotive Design



HOME

<< BACK



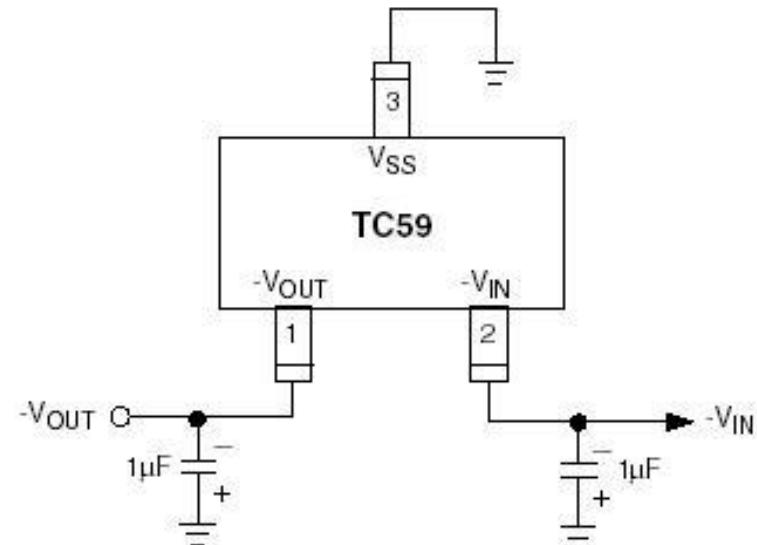
MICROCHIP

TC59

Online
Datasheet

Features:

- Low Dropout Voltage
120mV (typ.) @ 50mA
380mV (typ.) @ 100mA for -5.0V Out
- High Output Voltage Accuracy: 2% (max.)
- Low Supply Current: 3.5 μ A (typ.)
- Small Package: 3-Pin SOT-23A



HOME

<< BACK



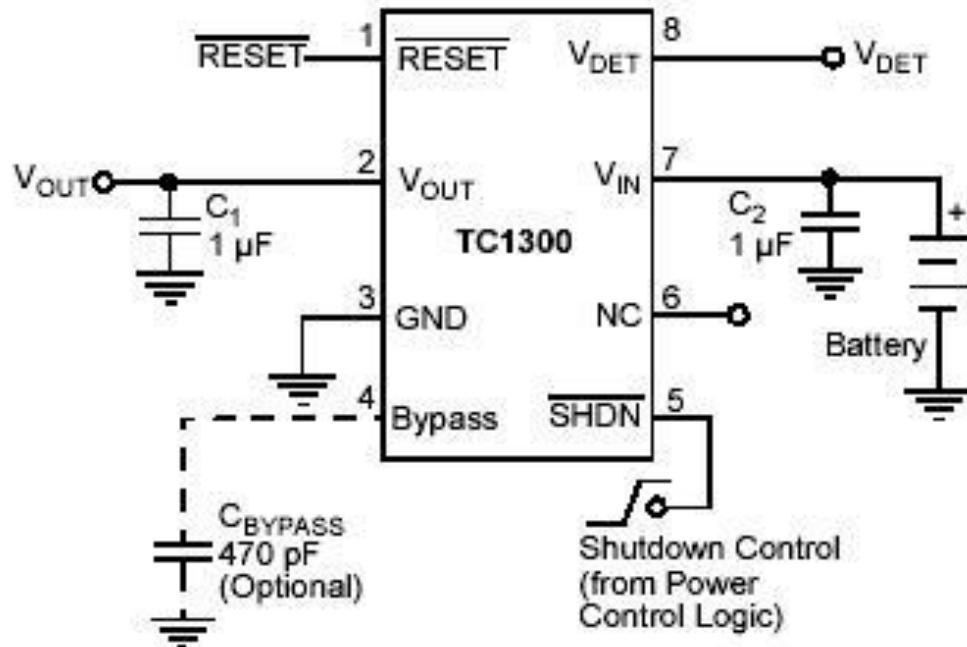
MICROCHIP

TC1300

Online
Datasheet

Features:

- LDO with Integrated Microprocessor Reset Monitor Functionality
- Low Supply Current: 80 μ A (typ.)
- Stable with Any Type of Capacitor
- Very Low Dropout Voltage
- 10 μ s (typ.) Wake Up Time from SHDN
- Standard or Custom Output and Detected Voltages
- Power-Saving Shutdown Mode
- Bypass Input for Ultra-Quiet Operation
- Separate Input and Detected Voltage
- 140ms Guaranteed Minimum RESET Output Duration



[TC1307 >>](#)

[HOME](#)

[<< BACK](#)



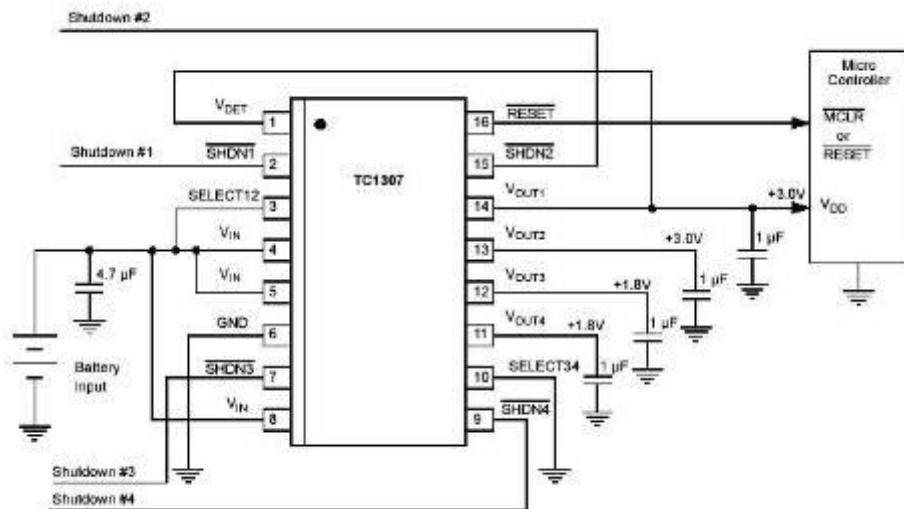
MICROCHIP

TC1307

Online
Datasheet

Features:

- Four Independent 150mA LDOs
- Low Supply Current 220 μ A (typ.)
- SelectMode™: Selectable Output Voltages for High Design Flexibility
- Low Dropout Voltage: 100mV (typ.) with 150mA load
- 10 μ s (typ.) Wake Up Time from SHDN
- High Output Voltage Accuracy: 0.5% (typ.)
- Power-Saving Shutdown Mode
- RESET Output used as a Low Battery Detector or Processor Reset Generator
- Overcurrent and Overtemperature Protection
- Small 16-Pin QSOP Package



[TC1300 >>](#)

[HOME](#)

[<< BACK](#)



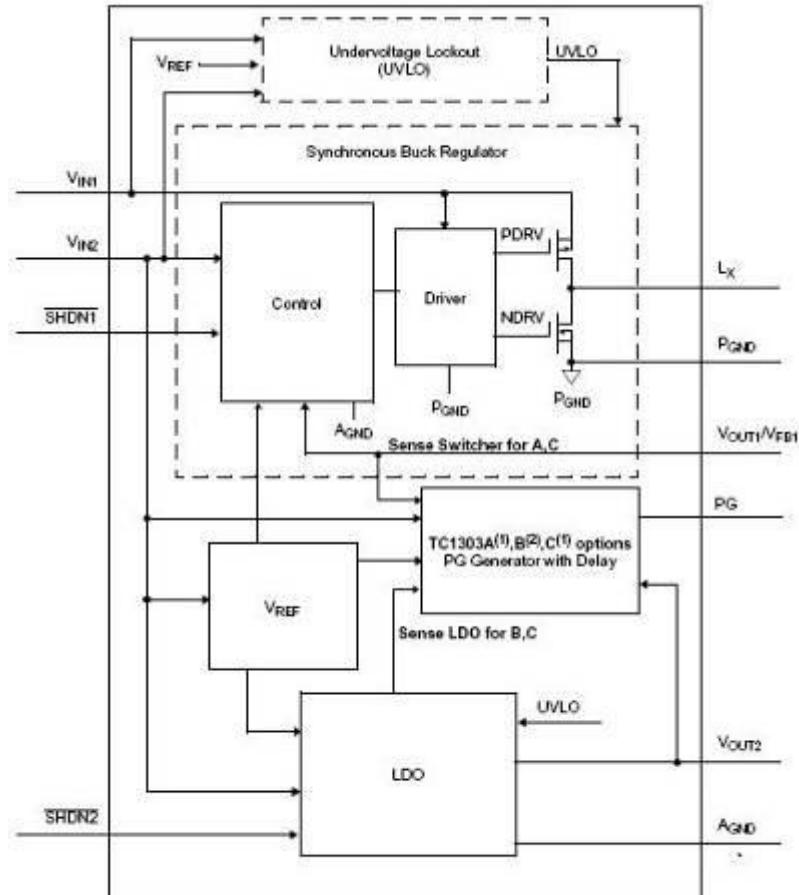
MICROCHIP

TC1303/4

Online
Datasheet

Features:

- Dual-Output Regulator (500mA Buck Regulator and 300mA LDO)
- Power-Good Output with 300ms Delay
- Quiescent Current: 65 μ A (typ.)
- Independent Shutdown for Buck and LDO Outputs (TC1303)
- Synchronous Buck Regulator:
 - Over 90% (typ.) Efficiency
 - 2.0MHz Fixed-Frequency PWM
 - Automatic PWM to PFM Mode Transition
 - Adjustable and Standard Output Voltages
- Low-Dropout Regulator:
 - Dropout Voltage: 137mV @ 200mA (typ.)
 - Standard Fixed Output Voltages
- Power-Good Function:
 - Monitors Buck Output Function (TC1303A)
 - Monitors LDO Output Function (TC1303B)
 - Monitors Both Buck and LDO Output Function (TC1303C and TC1304)
- Sequenced Startup and Shutdown (TC1304)
- Small 10-Pin 3x3 DFN or MSOP Package



Note 1: PG open-drain for A,C options
2: PG push-pull output for B option

[More Diagrams](#)

[**<< BACK to
Switchers**](#)

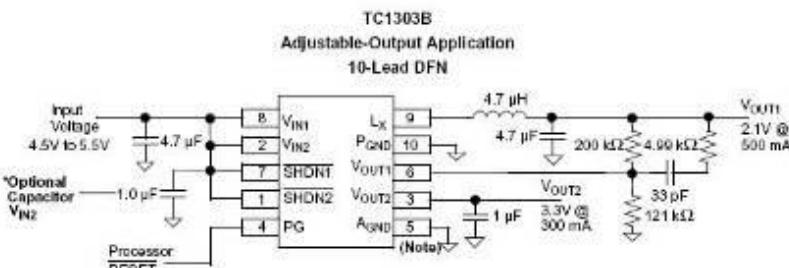
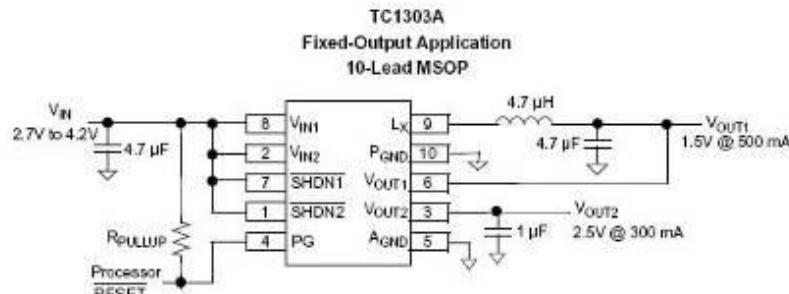
[**<< BACK to
LDOs**](#)



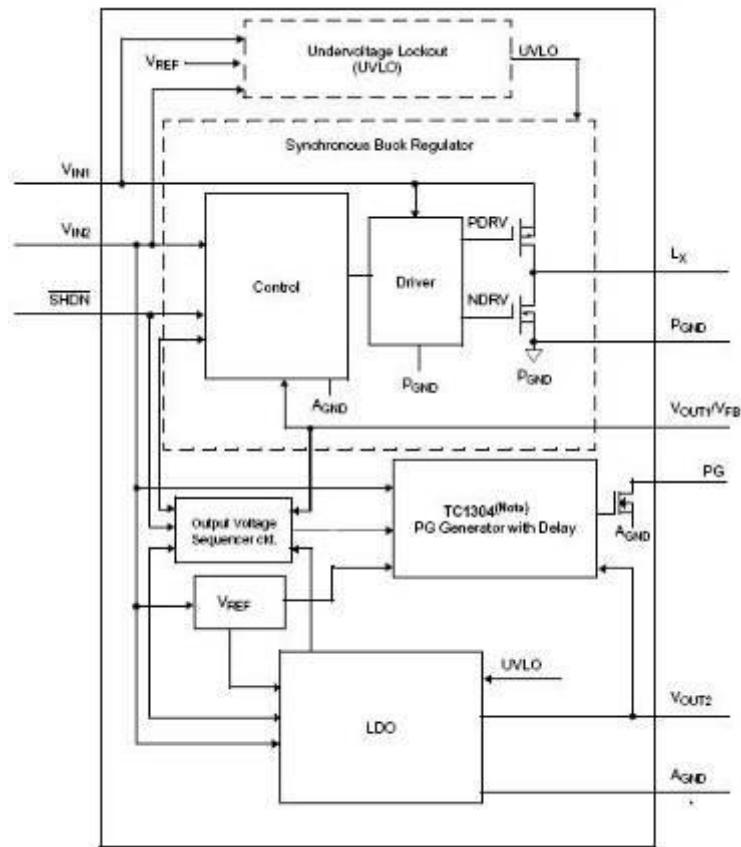
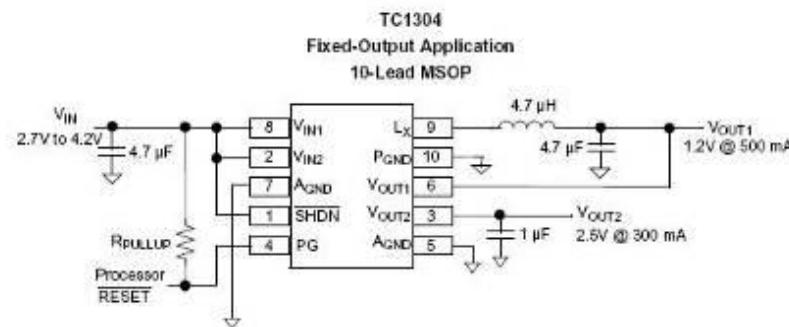
MICROCHIP

Online
Datasheet

TC1303/4 (cont.)



Note: Connect DFN package exposed pad to AGND.



Note: PG open-drain for TC1304

[Previous Diagrams](#)

[<< BACK to
Switchers](#)

[<< BACK to
LDOs](#)



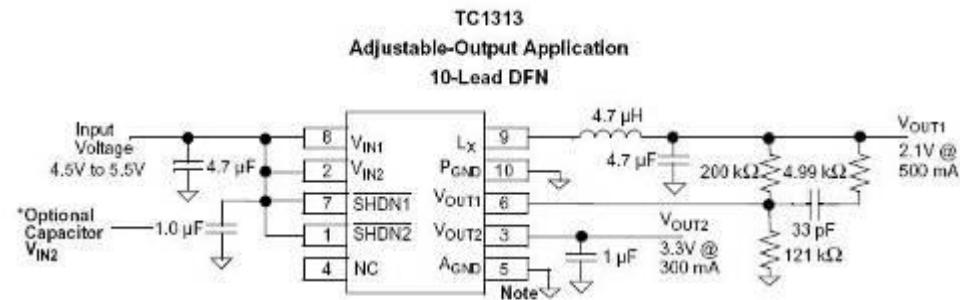
MICROCHIP

TC1313

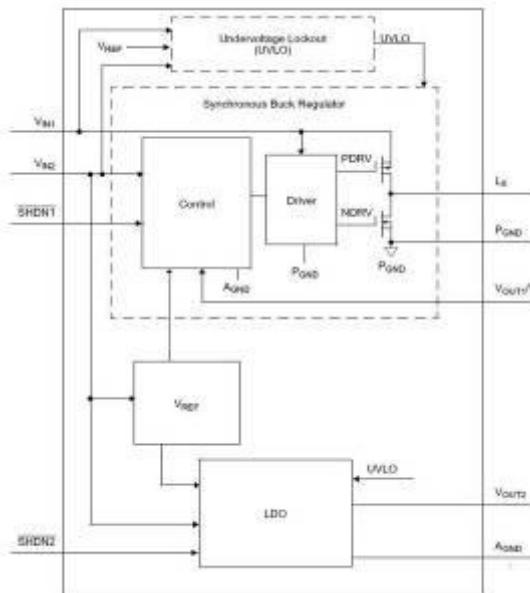
Online
Datasheet

Features:

- Dual-Output Regulator (500mA Buck Regulator and 300mA LDO)
- Quiescent Current: 57 μ A (typ.)
- Independent Shutdown for Buck and LDO Outputs
- Synchronous Buck Regulator:
 - Over 90% (typ.) Efficiency
 - 2.0MHz Fixed-Frequency PWM
 - Automatic PWM to PFM Mode Transition
 - Adjustable and Standard Output Voltages
- Low-Dropout Regulator:
 - Dropout Voltage: 137mV @ 200mA (typ.)
 - Standard Fixed Output Voltages
- Undervoltage Lockout (UVLO)
- Output Short Circuit Protection
- Overtemperature Protection
- Small 10-Pin 3x3 DFN or MSOP Package



Note: Connect DFN package exposed pad to AGND.



<< BACK to
Switchers

<< BACK to
LDOs



MICROCHIP

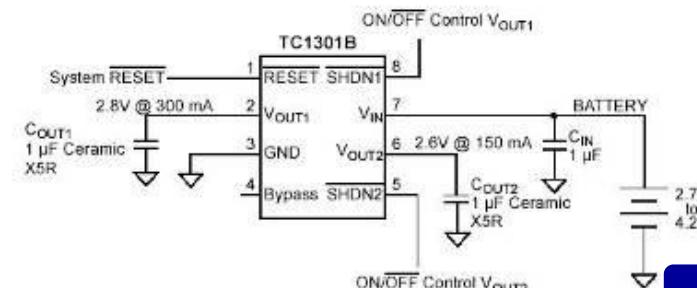
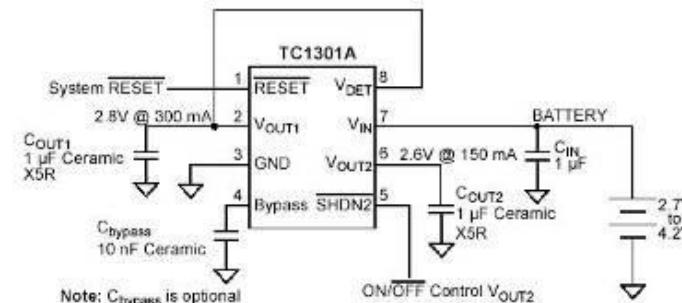
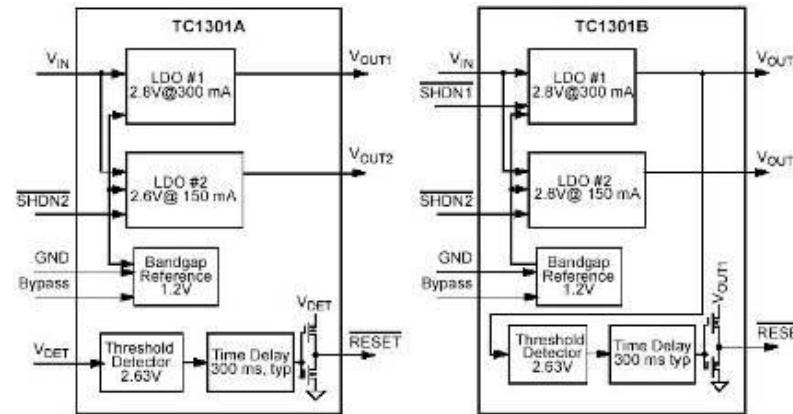
TC1301

Online
Datasheet

Features:

- Dual Output LDO with Microcontroller Reset Monitor Functionality:
 - $V_{OUT1} = 1.5$ to $3.3V$ @ $300mA$
 - $V_{OUT2} = 1.5V$ to $3.3V$ @ $150mA$
 - $V_{RESET} = 2.20V$ to $3.20V$
- Output Voltage and RESET Threshold Voltage Options Available (See Table 8-1)
- Low Dropout Voltage:
 - V_{OUT1} : $104mV$ @ $300mA$ (typ.)
 - V_{OUT2} : $150mV$ @ $150mA$ (typ.)
- Low Supply Current: $116\mu A$ (typ.)
- Reference Bypass Input for Low Noise Operation
- Both Output Voltages Stable with a Minimum $1\mu F$ Ceramic Output Capacitor
- Separate Input for RESET Detect Voltage (TC1301A)
- Separate V_{OUT1} and V_{OUT2} SHDN Pins (TC1301B)
- Power Saving Shutdown Mode
- Small 8-Pin DFN and MSOP Packages

[TC1302 >>](#)



[HOME](#)

[<< BACK](#)



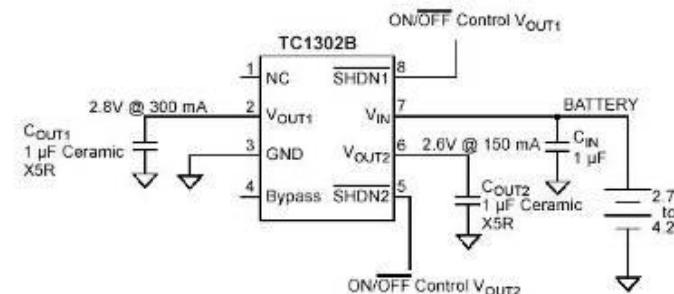
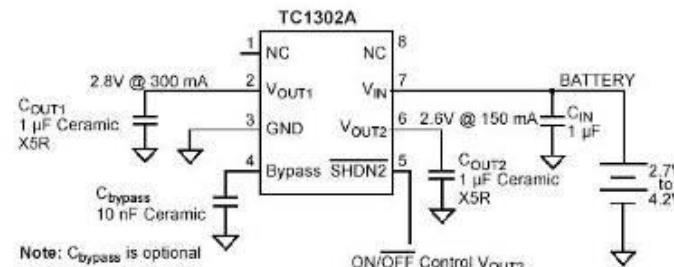
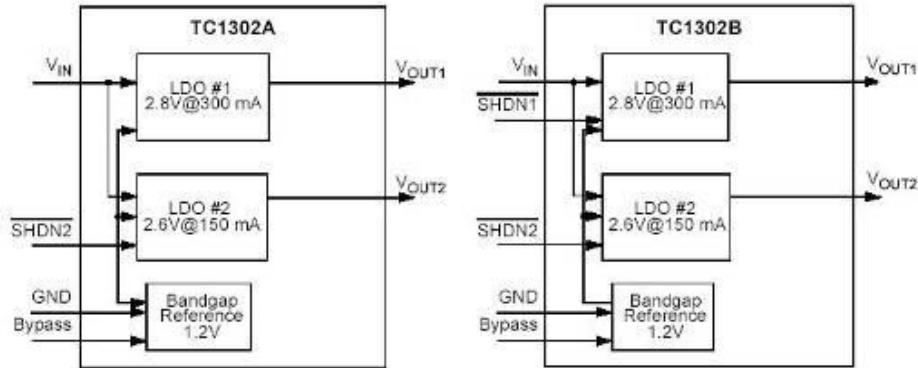
MICROCHIP

TC1302

Online
Datasheet

Features:

- Dual Output LDO:
 $V_{OUT1} = 1.5$ to $3.3V$ @ $300mA$
 $V_{OUT2} = 1.5V$ to $3.3V$ @ $150mA$
 $V_{RESET} = 2.20V$ to $3.20V$
- Output Voltage Options (See Table 8-1)
- Low Dropout Voltage:
 - V_{OUT1} : $104mV$ @ $300mA$ (typ.)
 - V_{OUT2} : $150mV$ @ $150mA$ (typ.)
- Low Supply Current: $116\mu A$ (typ.)
- Reference Bypass Input for Low Noise Operation
- Both Output Voltages Stable with a Minimum $1\mu F$ Ceramic Output Capacitor
- Separate V_{OUT1} and V_{OUT2} SHDN Pins (TC1302B)
- Power Saving Shutdown Mode
- Overtemperature and Overcurrent Protection
- Small 8-Pin DFN and MSOP Packages



[TC1301 >>](#)

[HOME](#)

[<< BACK](#)



MICROCHIP

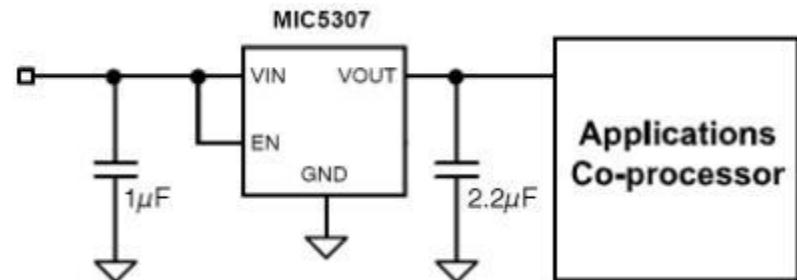
MIC5307

300mA Micropower μ Cap Baseband LDO

Online
Datasheet

Features:

- Input voltage range: 2.4V to 5.5V
- Ultra-low I_Q : only 20 μ A operating current
- Stable with ceramic output capacitor
- Low dropout voltage of 120mV at 300mA
- High output accuracy:
 - $\pm 1.0\%$ initial accuracy
 - $\pm 2.0\%$ over temperature
- Thermal shutdown protection
- Current limit protection



[HOME](#)

[<< BACK](#)



MICROCHIP

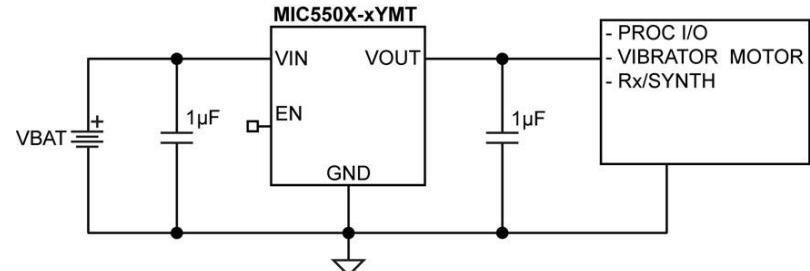
MIC5501/2/3/4

300mA LDO in 1.0mm x 1.0mm DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages from 1.0V to 3.3V
- 300mA guaranteed output current
- High output accuracy ($\pm 2\%$)
- Low quiescent current: 38 μ A
- Stable with 1 μ F ceramic output capacitors
- Low dropout voltage: 160mV @ 300mA
- Output discharge circuit: MIC5502, MIC5504
- Internal enable pull-down: MIC5503, MIC5504
- Thermal-shutdown and current-limit protection
- 4-lead 1.0mm x 1.0mm Thin DFN package
- MIC5504 5-pin SOT23 package



HOME

<< BACK



MICROCHIP

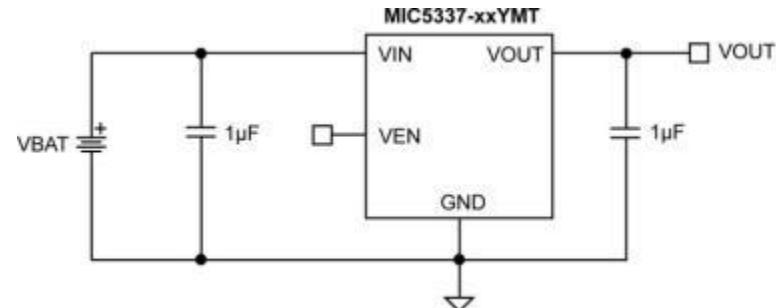
MIC5337

1.2mm x 1.6mm 300mA Low I_Q & Ultra Low Dropout LDO with Auto Discharge

Online
Datasheet

Features:

- 300mA output current
- Low I_Q : only 24 μ A operating current
- Low dropout voltage: 180mV at 300mA
- Active discharge when enable pin is low
- Input voltage range: 2.3V to 5.5V
- Fixed output voltages
- Stable with 1 μ F ceramic capacitors
- Thermal shutdown and current limit protection
- Tiny 4-pin 1.2mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

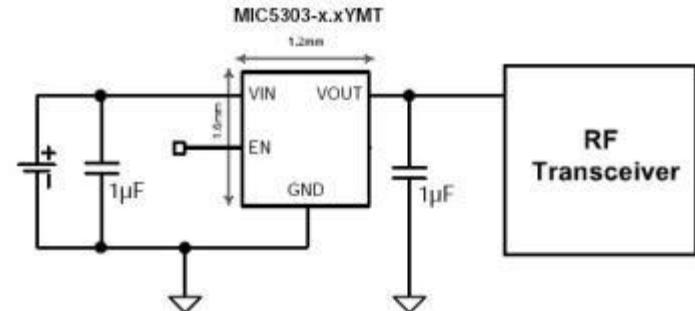
MIC5303

300mA Ultra-Small ULDO

Online
Datasheet

Features:

- Ultra-small 1.2mm x 1.6mm Thin MLF® package
- Low dropout voltage: 100mV at 300mA
- Output noise: $120\mu\text{V}_{\text{rms}}$
- Input voltage range: 2.3V to 5.5V
- 300mA guaranteed output current
- Stable with ceramic output capacitors
- Low quiescent current: 85 μA total
- 35 μs turn-on time
- High output accuracy:
 - $\pm 2\%$ initial accuracy
 - $\pm 3\%$ over temperature
- Thermal shutdown and current limit protection



HOME

<< BACK



MICROCHIP

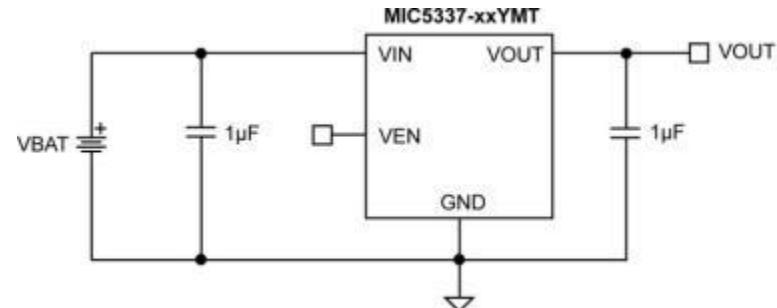
MIC5337

1.2mm x 1.6mm 300mA Low I_Q & Ultra Low Dropout LDO with Auto Discharge

Online
Datasheet

Features:

- 300mA output current
- Low I_Q : only 24 μ A operating current
- Low dropout voltage: 180mV at 300mA
- Active discharge when enable pin is low
- Input voltage range: 2.3V to 5.5V
- Fixed output voltages
- Stable with 1 μ F ceramic capacitors
- Thermal shutdown and current limit protection
- Tiny 4-pin 1.2mm x 1.6mm Thin MLF® package



HOME

<< BACK



MICROCHIP

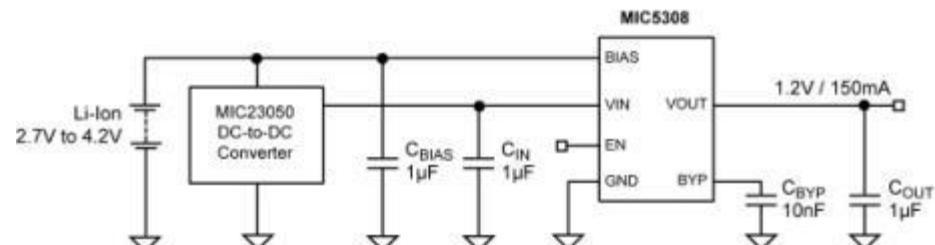
MIC5308

Low V_{IN} / V_{OUT} 150mA High PSRR ULDO with Ultra-Low IQ

Online
Datasheet

Features:

- Input voltage range: 1.6V to 5.5V
- High PSRR: up to 90dB at 1kHz
- Guaranteed 150mA over temperature
- Ultra-low dropout voltage: 45mV at 150mA
- Output voltage range: 0.8V to 2.0V
- Very low ground current: 23 μ A under full load
- Bias supply voltage range: 2.5V to 5.5V
- Stable with 1 μ F ceramic output capacitor
- Thermal shutdown and current limit protection
- 1.6x1.6mm DFN (MLF) and SOT23-6 package





MICROCHIP

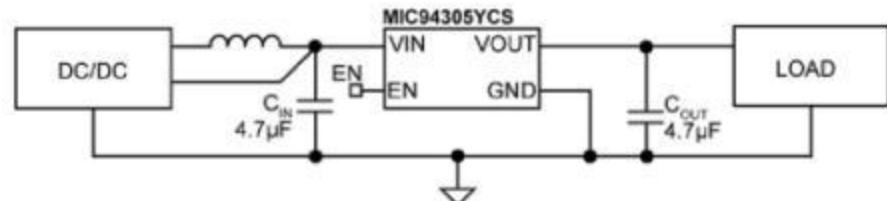
MIC94305

500mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 500mA output current
- Current-limit and thermal-limit protected
- Ultra-small 0.84mm x 1.32mm 6-ball CSP
- 1.6mm x 1.6mm, 6-pin Thin DFN
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

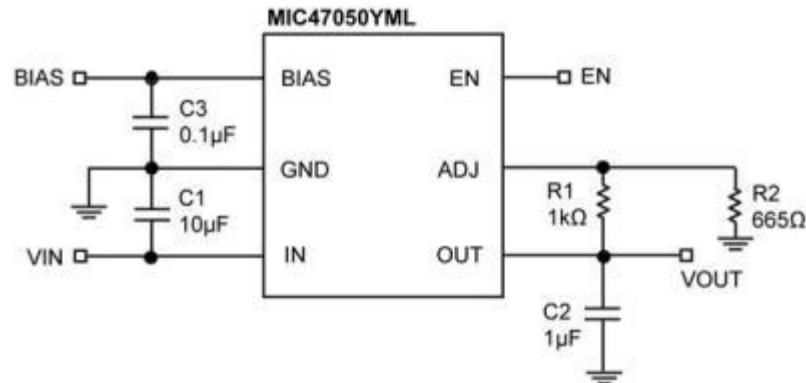
MIC47050

500mA ULDO with Low Input and Low Output Voltage

Online
Datasheet

Features:

- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- $\pm 1.5\%$ initial output voltage accuracy
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range: 0.4V to 2.0V
- Logic-level enable input
- 400mA maximum output current per LDO
- Very fast transient response
- UVLO on both supply packages
- Thermally enhanced 2mm x 2mm MLF® and Thin MLF® packages
- Junction temperature range of -40°C to +125°C
- Low dropout voltage ULDO™: 44mV at 500mA



[HOME](#)

[<< BACK](#)



MICROCHIP

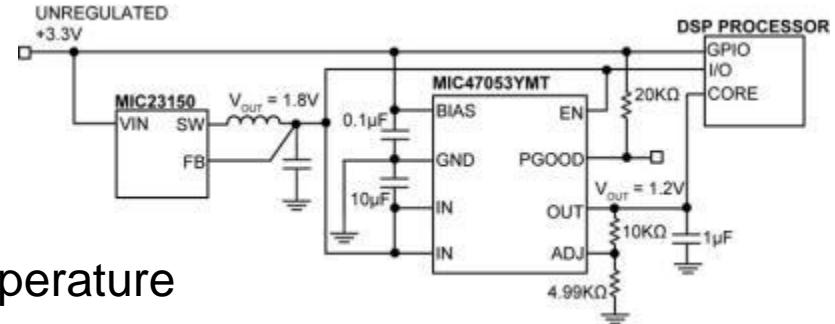
MIC47053

500mA Micropower ULDO™ Linear Regulator

Online
Datasheet

Features:

- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- Low dropout voltage: 49mV at 500mA
- $\pm 2\%$ initial output voltage accuracy over temperature
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range down to 0.4V
- Logic-level enable input
- UVLO on both supply voltages
- High bandwidth - very fast transient response
- Low shutdown current: 0.1 μ A typical
- Thermally enhanced 2mm x 2mm Thin DFN package
- Junction temperature range of -40°C to +125°C



[HOME](#)

[<< BACK](#)



MICROCHIP

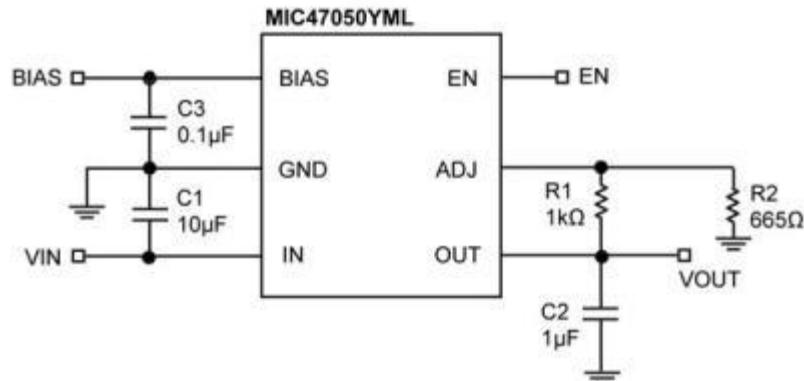
MIC47050

500mA ULDO with Low Input and Low Output Voltage

Online
Datasheet

Features:

- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- $\pm 1.5\%$ initial output voltage accuracy
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range: 0.4V to 2.0V
- Logic-level enable input
- 400mA maximum output current per LDO
- Very fast transient response
- UVLO on both supply packages
- Thermally enhanced 2mm x 2mm MLF® and Thin MLF® packages
- Junction temperature range of -40°C to +125°C
- Low dropout voltage ULDO™: 44mV at 500mA



[HOME](#)

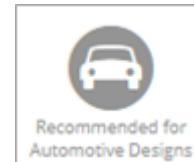
[<< BACK](#)



MICROCHIP

MIC47050

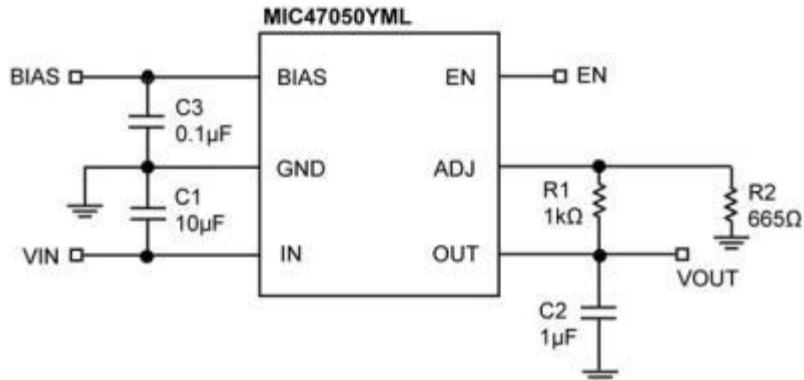
500mA ULDO with Low Input and Low Output Voltage



Online
Datasheet

Features:

- Input voltage range: 1.0V to 3.6V
- Stable with 1 μ F ceramic output capacitor
- $\pm 1.5\%$ initial output voltage accuracy
- Bias supply voltage range: 2.3V to 5.5V
- Adjustable output voltage range: 0.4V to 2.0V
- Logic-level enable input
- 400mA maximum output current per LDO
- Very fast transient response
- UVLO on both supply packages
- Thermally enhanced 2mm x 2mm MLF® and Thin MLF® packages
- Junction temperature range of -40°C to +125°C
- Low dropout voltage ULDO™: 44mV at 500mA
- Recommended for Automotive Design (MIC47050)



[HOME](#)

[<< BACK](#)



MICROCHIP

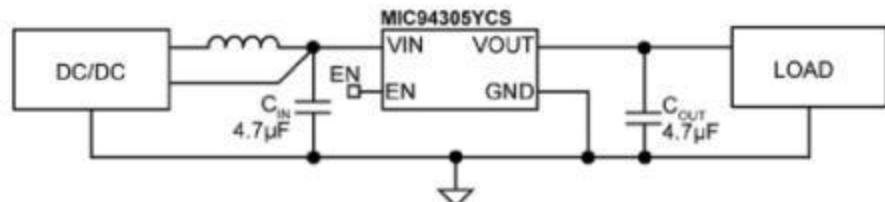
MIC94305

500mA Switch with Ripple Blocker™ Technology

Online
Datasheet

Features:

- 1.8V to 3.6V input voltage range
- Active noise rejection over a wide frequency band: >60dB from 40kHz to 5MHz
- Rated to 500mA output current
- Current-limit and thermal-limit protected
- Ultra-small 0.84mm x 1.32mm 6-ball CSP
- 1.6mm x 1.6mm, 6-pin Thin DFN
- Logic-controlled enable pin
- -40°C to +125°C junction temperature range



HOME

<< BACK



MICROCHIP

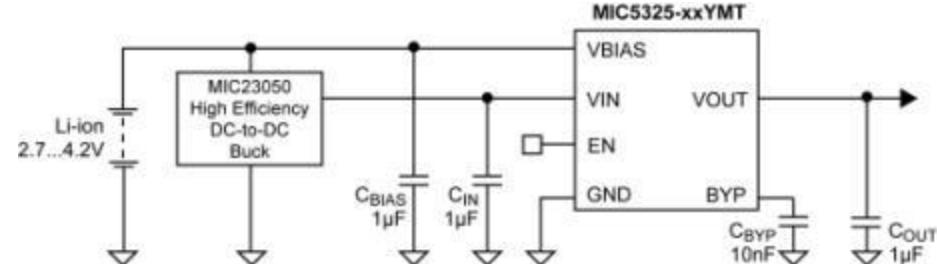
MIC5325

Low V_{IN}/V_{OUT} 400mA ULDO with Ultra-Low I_Q

Online
Datasheet

Features:

- Wide input voltage range: 1.7V to 5.5V
- Very fast transient response
- Bias supply voltage range: 2.5V to 5.5V
- Ultra-low ground current: 35 μ A typical
- 400mA maximum output current per LDO
- Thermal shutdown and current limit protection
- Tiny 6-pin 2mm x 2mm Thin MLF® package
- Ultra-low dropout voltage ULDO™: 110mV at 400mA
- Stable with 1 μ F ceramic output capacitor
- $\pm 2\%$ voltage accuracy over temperature
- Adjustable output voltage range: 0.8V to 2.0V



[HOME](#)

[<< BACK](#)



MICROCHIP

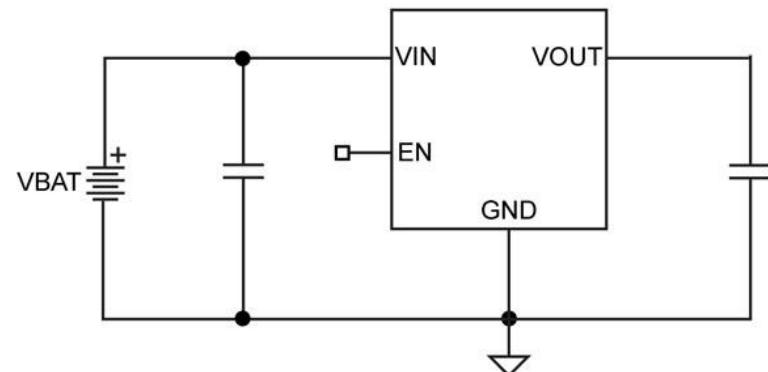
MIC5524

High-Performance 500mA LDO in Thin DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages down to 1.0V
- 500mA guaranteed output current
- High output initial accuracy ($\pm 1\%$)
- High PSRR: 80dB
- Low quiescent current: 38 μ A
- Stable with 2.2 μ F ceramic output capacitors
- Low dropout voltage: 260mV @ 500mA
- Autodischarge and internal enable pulldown
- Thermal-shutdown and current-limit protection
- 4-pin 1mm x 1mm Thin DFN package



HOME

<< BACK



MICROCHIP

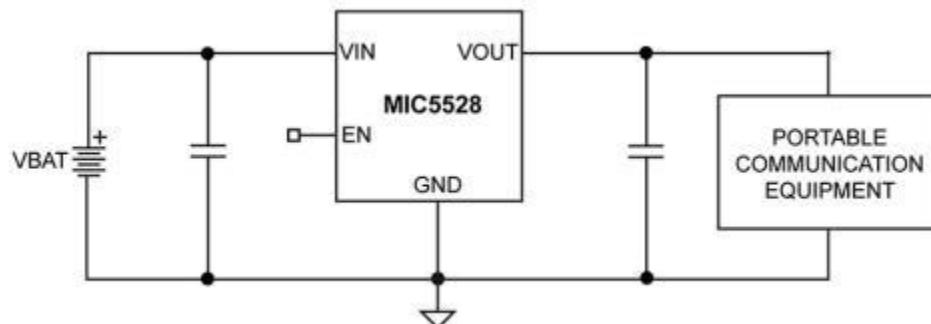
MIC5528

High-Performance 500mA LDO in Thin DFN

Online
Datasheet

Features:

- Input voltage range: 2.5V to 5.5V
- Fixed output voltages down to 1.0V
- $\pm 2\%$ Room temperature accuracy
- Low quiescent current: 38 μ A
- Stable with 2.2 μ F ceramic output capacitors
- Low dropout voltage: 260mV @ 500mA
- Autodischarge and internal enable pulldown
- Thermal-shutdown and current-limit protection
- 6-pin 1.2mm x 1.2mm extra thin DFN package
- 6-pin 1.2mm x 1.2mm thin DFN package



[HOME](#)

[<< BACK](#)



MICROCHIP

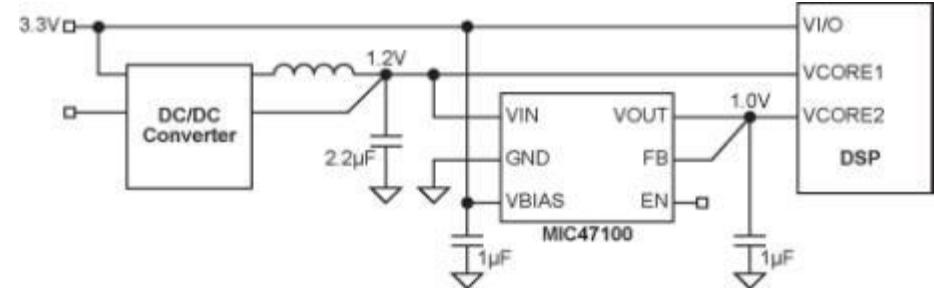
MIC47100

1A High Speed Low V_{IN} LDO

Online
Datasheet

Features:

- Operating voltage range:
 - Input Supply: 1.0V to 3.6V
 - Bias Supply: 2.3V to 5.5V
- 0.8V to 2.0V output voltage range
- PSRR >50dB at 100kHz
- Stable with a 1µF ceramic output capacitor
- Low dropout voltage of 80mV at 1A
- High output voltage accuracy:
 - ±1.5% initial accuracy
 - ±2% over temperature
- UVLO on both supply voltages for easy turn-on
- ePad MSOP-8 -- small form factor power package
- Thermally enhanced 2mm x 2mm MLF® -- smallest solution



[HOME](#)

[<< BACK](#)



MICROCHIP

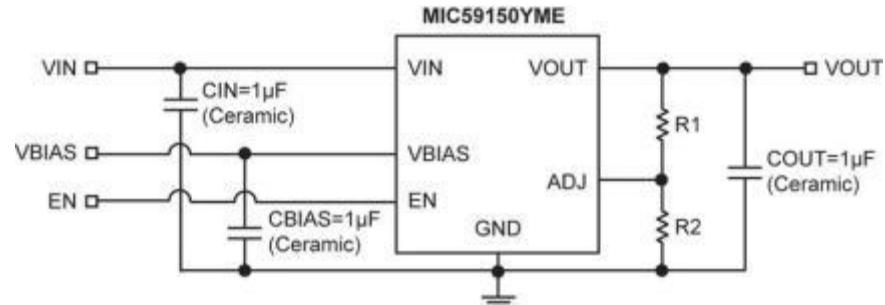
MIC59150

Ultra High Speed 1.5A LDO

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $3.8V$
 - $V_{BIAS} = 3.0V$ to $5.5V$
- Stable with $1\mu F$ ceramic capacitor
- Maximum dropout voltage of $250mV$ over temperature
- Adjustable output voltage down to $0.5V$
- Ultra fast transient response
- Excellent line and load regulation specifications
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- Junction temperature range: $-40^{\circ}C$ to $+125^{\circ}C$
- 8-pin EPAD SOIC



[HOME](#)

[<< BACK](#)



MICROCHIP

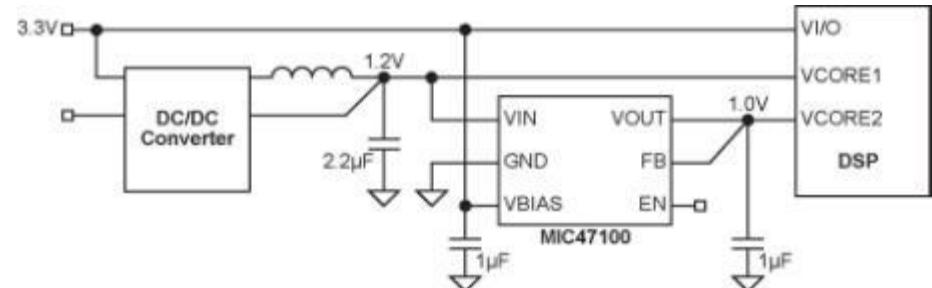
MIC47100

1A High Speed Low V_{IN} LDO

Online
Datasheet

Features:

- Operating voltage range:
 - Input Supply: 1.0V to 3.6V
 - Bias Supply: 2.3V to 5.5V
- 0.8V to 2.0V output voltage range
- PSRR >50dB at 100kHz
- Stable with a 1µF ceramic output capacitor
- Low dropout voltage of 80mV at 1A
- High output voltage accuracy:
 - ±1.5% initial accuracy
 - ±2% over temperature
- UVLO on both supply voltages for easy turn-on
- ePad MSOP-8 -- small form factor power package
- Thermally enhanced 2mm x 2mm MLF® -- smallest solution



[HOME](#)

[<< BACK](#)



MICROCHIP

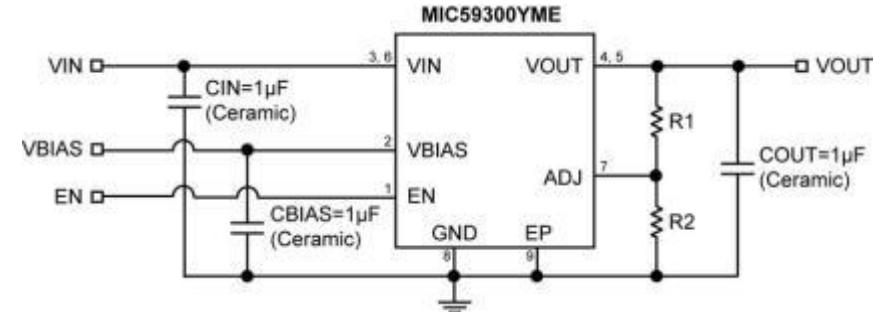
MIC59300

Ultra High Speed 3A LDO

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $3.8V$
 - $V_{BIAS} = 3.0V$ to $5.5V$
- Stable with $1\mu F$ ceramic capacitor
- $\pm 1\%$ initial tolerance
- Maximum dropout voltage of $500mV$ over temperature
- Adjustable output voltage down to $0.5V$
- Ultra-fast transient response
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- $-40^{\circ}C$ to $+125^{\circ}C$ junction temperature range
- TO-263 and 8-pin ePad SOIC
- Pin compatible upgrade to MIC49300



[HOME](#)

[<< BACK](#)



MICROCHIP

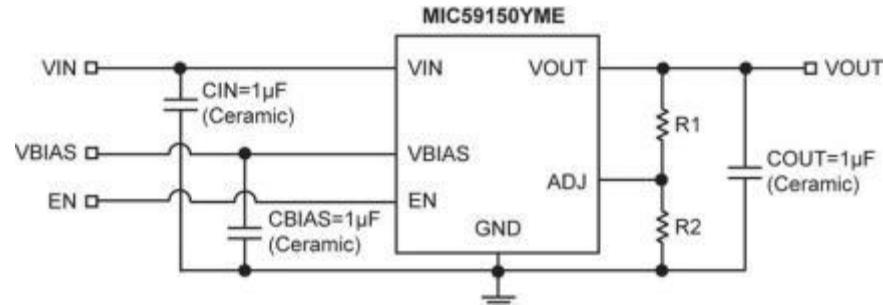
MIC59150

Ultra High Speed 1.5A LDO

Online
Datasheet

Features:

- Input voltage range:
 - $V_{IN} = 1.0V$ to $3.8V$
 - $V_{BIAS} = 3.0V$ to $5.5V$
- Stable with $1\mu F$ ceramic capacitor
- Maximum dropout voltage of $250mV$ over temperature
- Adjustable output voltage down to $0.5V$
- Ultra fast transient response
- Excellent line and load regulation specifications
- Logic controlled shutdown option
- Thermal shutdown and current limit protection
- Junction temperature range: $-40^{\circ}C$ to $+125^{\circ}C$
- 8-pin EPAD SOIC



HOME

<< BACK



MICROCHIP

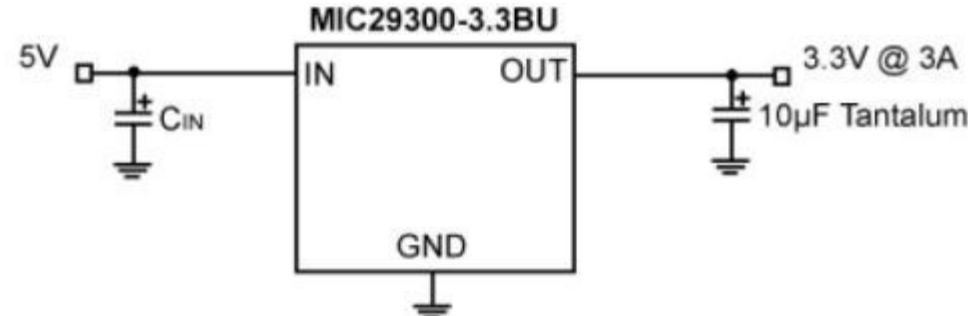
MIC29750/1/2

High-Current LDOs

Online
Datasheet

Features:

- High current capability
 - MIC29150/29151/29152/29153: 1.5A
 - MIC29300/29301/29302/29303: 3A
 - MIC29500/29501/29502/29503: 5A
 - MIC29750/29751/29752: 7.5A
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Reverse-battery and load dump protection
- Zero-current shutdown mode (5-pin versions)
- Error flag signals output out-of-regulation (5-pin versions)
- Also characterized for smaller loads with industry-leading performance specifications
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

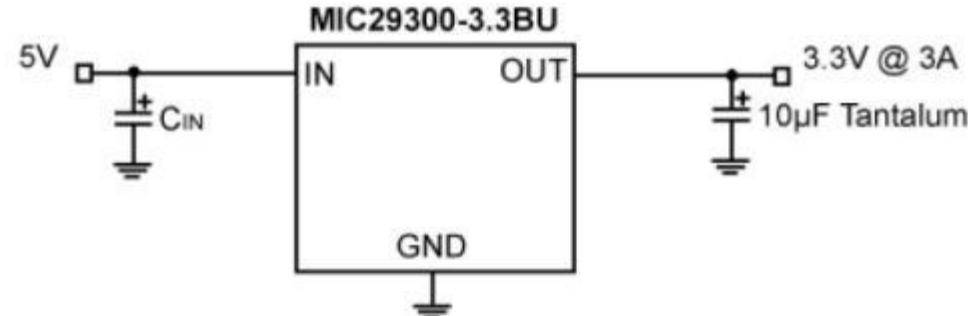
MIC29750/1/2

High-Current LDOs

Online
Datasheet

Features:

- High current capability
 - MIC29150/29151/29152/29153: 1.5A
 - MIC29300/29301/29302/29303: 3A
 - MIC29500/29501/29502/29503: 5A
 - MIC29750/29751/29752: 7.5A
- Low dropout voltage
- Low ground current
- Accurate 1% guaranteed tolerance
- Reverse-battery and load dump protection
- Zero-current shutdown mode (5-pin versions)
- Error flag signals output out-of-regulation (5-pin versions)
- Also characterized for smaller loads with industry-leading performance specifications
- Fixed voltage and adjustable versions



HOME

<< BACK



MICROCHIP

LDO Selector (Automotive Max Vin-1)

What is the MAX input voltage range?

Up to 5.5Vin

6Vin to 16Vin

18Vin to 36Vin

38Vin to 120Vin

This is not the range of input voltages, only the Max VIN!

HOME

<< BACK



MICROCHIP

LDO Selector ($I_{out-1} \leq 5.5V$)

What is the MAX current output range?

200mA to 300mA

400mA to 500mA



MICROCHIP

LDO Selector (Automotive)

Choices Made

- **Automotive**
- **Single Output**
- **5.5Vin Max**
- **200-300mA Output.**

MAQ5300
5.5Vin Max, 300mA,
100mV dropout,
85 μ A Low IQ

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Automotive)

Choices Made

- Automotive
- Single Output
- 5.5Vin Max
- 400mA-500mA Output

MIC47050

3.6Vin Max, 500mA,
44mV Ultra Low dropout,
Adjustable Output Voltage

HOME

<< BACK



MICROCHIP

LDO Selector (I_{out}-1 6V to 16V)

What is the MAX current output range?

≤70mA

100mA to 150mA

200mA to 300mA

400mA to 500mA

1A to 1.5A

HOME

<< BACK



MICROCHIP

LDO Selector (16Vin Max 70mA)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- \leq 70mA Output
- Automotive

TC1014

6Vin Max, 85mV DO,
50mA Output, SOT-23

TC1054

6Vin Max, 85mV DO
50mA Output, $\pm 0.5\%$
Accuracy

TC1070

6Vin Max, 85mV DO,
50mA Output
Adjustable Output
Voltage

HOME

<< BACK



MICROCHIP

LDO Selector (16Vin Max 100mA-150mA)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 100mA-150mA Output
- Automotive

TC1017

6Vin, 150mA Output,
53 μ A Operating Current

MCP1754

16Vin, 150mA Output
72dB PSRR

TC1186

6Vin, 150mA Output,
85mV dropout

TC1055

6Vin, 100mA Output,
 $\pm 0.5\%$ Accuracy

MCP1754S

16Vin, 150mA Output
SOT-23A, SOT-89-3

TC1187

6Vin, 150mA Output,
Adjustable Voltage Output

TC1071

6Vin, 100mA Output,
50 μ A Ground Current

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 200mA-300mA)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 200mA-300mA Output
- Automotive

MCP1703A
16Vin, 250mA Output
 $\pm 0.4\%$ Accuracy

MCP1700
6Vin, 250mA Output,
1.6 μ A Operating Current

MCP1824
6Vin, 300mA Output,
Power Good(PG) Output

MCP1702
13.2Vin, 250 Output,
2.0 μ A Operating Current

MCP1824S
6Vin, 300mA Output,
SOT-223-3

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 400mA-500mA)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 400mA-500mA Output
- Automotive

MCP1725
6Vin, 500mA Output
Power Good(PG)
Output

MCP1825
6Vin, 500mA Output,
120 μ A Supply Current

MCP1825S
6Vin, 500mA Output,
SOT-223-5, TO-220-5,
DDPAK-5

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (16Vin Max 1A-1.5A)

Choices Made

- Single Output
- 6.0 - 16Vin Max
- 1A-1.5A Output
- Automotive

MCP1726

6Vin, 1A Output
Adjustable Output
Voltage

MCP1727

6Vin, 1.5A Output
Adjustable Output
Voltage

MCP1826

6Vin, 1A Output,
Power Good(PG)
Output

MCP1827

6Vin, 1.5A Output,
330mV DO

MCP1826S

6Vin, 1A Output,
SOT-223-5, TO-220-5,
DDPAK-5

MCP1827S

6Vin, 1.5A Output,
SOT-223-5, TO-220-5,
DDPAK-5

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (I_{out-1} 18V to 36V)

What is the MAX current output range?

≤70mA

100mA to 150mA

HOME

<< BACK



MICROCHIP

LDO Selector (36Vin Max 70mA)

Choices Made

- Single Output
- 18Vin- 36Vin Max
- \leq 70mA Output
- Automotive

MCP1790/1
30Vin Max, 70 μ A Low IQ,
90dB PSRR

HOME

<< BACK



MICROCHIP

LDO Selector (36Vin Max 150mA)

Choices Made

- Single Output
- 18Vin- 36Vin Max
- 100mA-150mA Output
- Automotive

MIC5233

36Vin Max, 100mA
Output
IttyBitty® SOT-23-5

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (Iout-1 38V to 120V)

What is the MAX current output range?

≤70mA

100mA to 150mA

HOME

<< BACK



MICROCHIP

LDO Selector (120Vin Max 70mA)

Choices Made

- Single Output
- 38Vin- 120Vin Max
- \leq 70mA Output
- Automotive

MAQ5280

120Vin Max, 25mA,
 $31\mu A$ Low IQ,
 ≥ 80 dB PSRR
ADJ Output

MAQ5281

120Vin Max, 25mA,
 $6\mu A$ Ultra Low IQ,
 ≤ 90 dB PSRR, ADJ
Output

MAQ5282

120Vin Max, 50mA,
 $6\mu A$ Ultra Low IQ,
80dB PSRR, ADJ
Output

[HOME](#)

[<< BACK](#)



MICROCHIP

LDO Selector (120Vin Max 150mA)

Choices Made

- Single Output
- 38Vin- 120Vin Max
- \leq 150mA Output
- Automotive

MAQ5283

120Vin Max, 150mA,
8 μ A Low IQ, 75dB PSRR
ADJ Output

MCP1792/3

55Vin Max, 100mA,
75V transient, 25 μ A IQ
Fixed Output: 3.3V 5.0V

MCP1799

45Vin Max, 80mA,
1uF Cap, 70dB PSRR
Fixed Output: 3.3V 5.0V

[HOME](#)

[<< BACK](#)



MICROCHIP

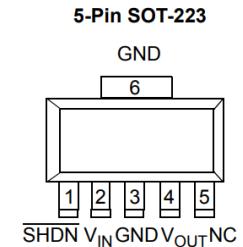
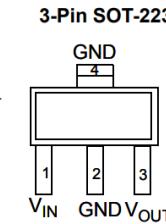
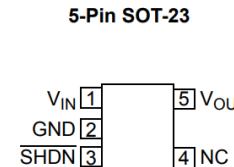
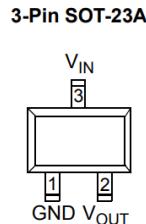
MCP1792/3

100mA Automotive LDO

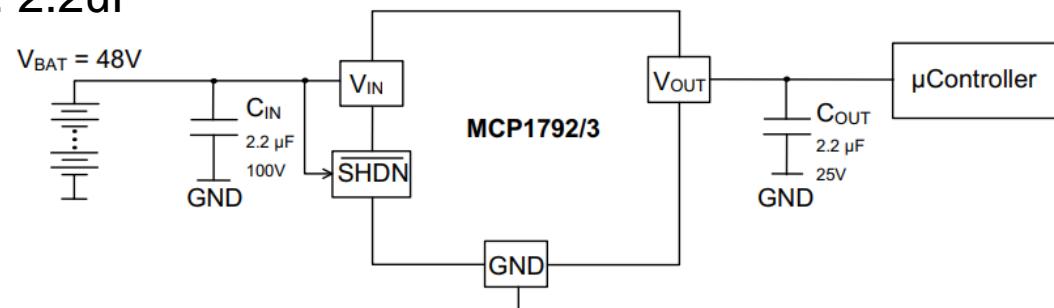
Online
Datasheet

Features:

- AEC-Q100 with Grade 0
- Wide Input Voltage Range: 4.5V to 55V
 - Up to 70V Transient
 - Under Voltage Lock Out (UVLO): 2.7V typical
- Extended Operating Temp Range: -40 to 150C
- Low Quiescent Current: 25uA typ
- Short Circuit Current Foldback Protection
- Thermal Shutdown Protection: 175C
- Stable with Ceramic Output Cap: 2.2uF
- High PSRR: 80dB @ 100Hz typ
- Available in following packages:
 - 3-Lead SOT-223 (MCP1792)
 - 3-Lead SOT-23A (MCP1792)
 - 5-Lead SOT-223 (MCP1793)
 - 5-Lead SOT-23 (MCP1793)



TOP VIEW



[HOME](#)

[<< BACK](#)



MICROCHIP

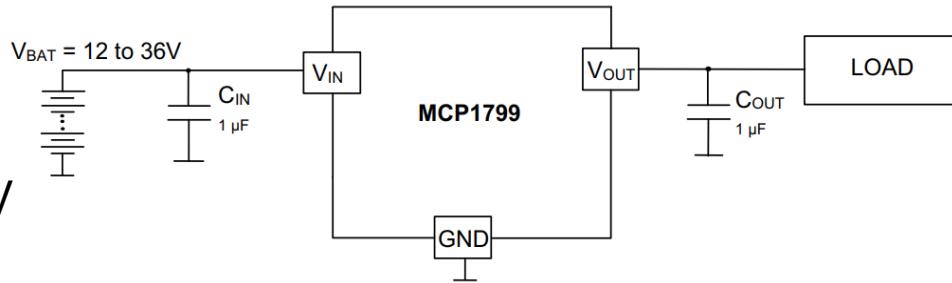
MCP1799

80mA Automotive LDO

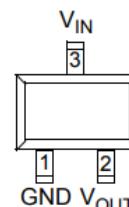
Online
Datasheet

Features:

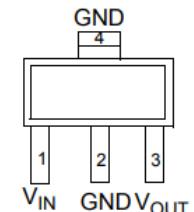
- AEC-Q100 with Grade 0
- Wide Input Voltage Range: 4.5V to 45V
 - Under Voltage Lock Out (UVLO): 2.8V typical
- Extended Operating Temp Range: -40 to 150C
- Low Quiescent Current: 25uA typ
- Short Circuit Current Foldback Protection
- Thermal Shutdown Protection: 180C
- Stable with Ceramic Output Cap: 1uF
- High PSRR: 70dB @ 1kHz typ
- Available in following packages:
 - 3-Lead SOT-23
 - 3-Lead SOT-223



3-Pin SOT-23



3-Pin SOT-223



HOME

<< BACK



MICROCHIP

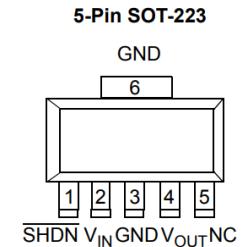
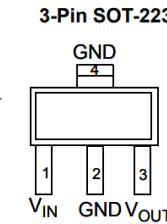
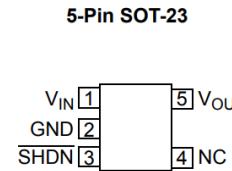
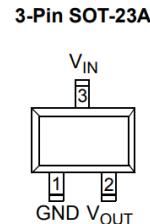
MCP1792/3

100mA High Input Automotive LDO

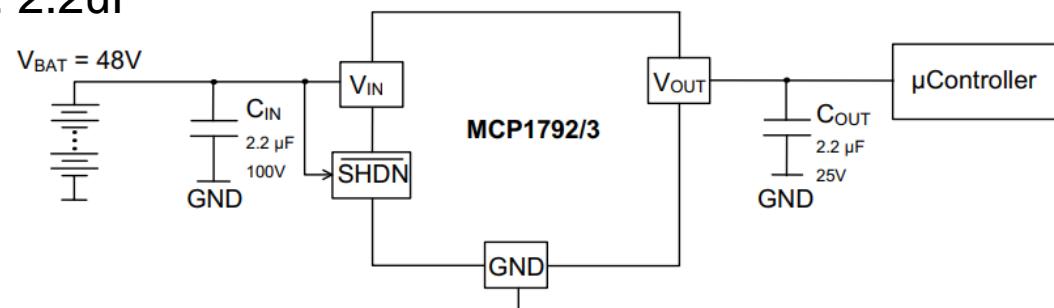
Online
Datasheet

Features:

- AEC-Q100 with Grade 0
- Wide Input Voltage Range: 4.5V to 55V
 - Up to 70V Transient
 - Under Voltage Lock Out (UVLO): 2.7V typical
- Extended Operating Temp Range: -40 to 150C
- Low Quiescent Current: 25uA typ
- Short Circuit Current Foldback Protection
- Thermal Shutdown Protection: 175C
- Stable with Ceramic Output Cap: 2.2uF
- High PSRR: 80dB @ 100Hz typ
- Available in following packages:
 - 3-Lead SOT-223 (MCP1792)
 - 3-Lead SOT-23A (MCP1792)
 - 5-Lead SOT-223 (MCP1793)
 - 5-Lead SOT-23 (MCP1793)



TOP VIEW



[HOME](#)

[<< BACK](#)



MICROCHIP

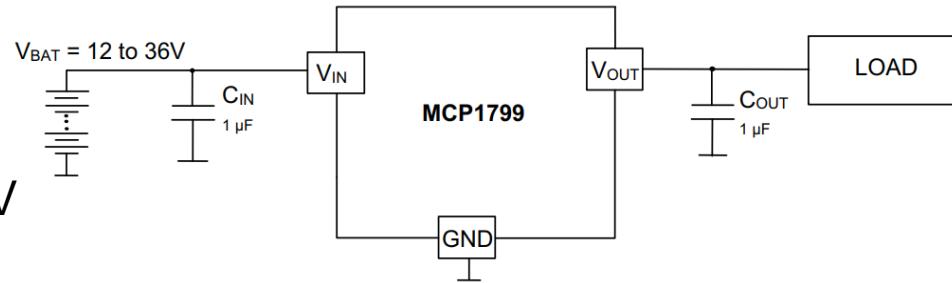
MCP1799

80mA Wide Input Automotive LDO

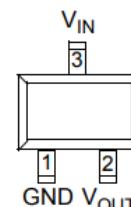
Online
Datasheet

Features:

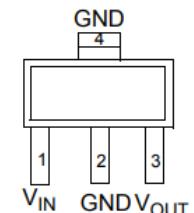
- AEC-Q100 with Grade 0
- Wide Input Voltage Range: 4.5V to 45V
 - Under Voltage Lock Out (UVLO): 2.8V typical
- Extended Operating Temp Range: -40 to 150C
- Low Quiescent Current: 25uA typ
- Short Circuit Current Foldback Protection
- Thermal Shutdown Protection: 180C
- Stable with Ceramic Output Cap: 1uF
- High PSRR: 70dB @ 1kHz typ
- Available in following packages:
 - 3-Lead SOT-23
 - 3-Lead SOT-223



3-Pin SOT-23



3-Pin SOT-223



HOME

<< BACK



MICROCHIP

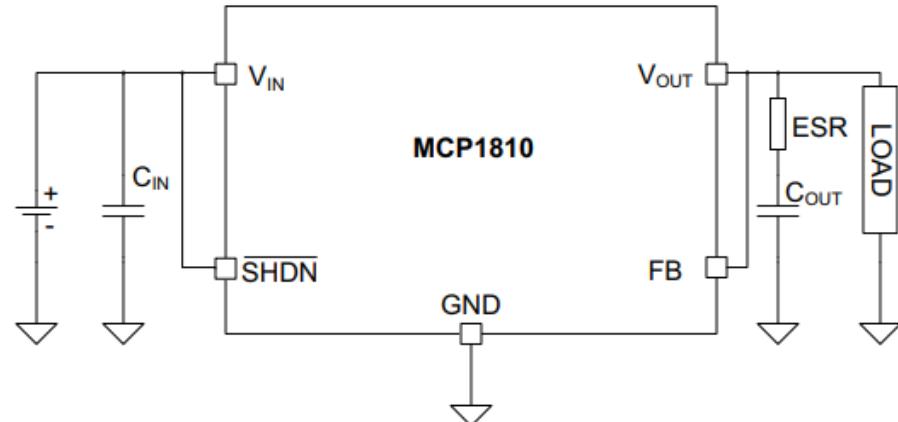
MCP1810

150mA Ultra Low Quiescent Current LDO

Online
Datasheet

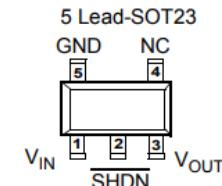
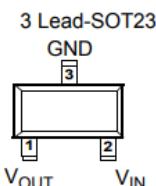
Features:

- Ultra Low Quiescent Current: 20nA typ
- Ultra Low Shutdown Current: 1nA typ
- Input Range: 2.5V to 5.5V
- Output Range: 1.2V to 4.2V
- Low Dropout Voltage: 380 mV Max
- Overcurrent Protection
- Stable with Ceramic Output Cap: 1uF
- Available in following packages:
 - 3/5-Lead SOT-23
 - 2x2mm DFN



MCP1810 2x2 VDFN*								
GND	1	0	---	8	SHDN			
V _{OUT}	2		EP	7	V _{IN}			
NC	3		9	6	FB			
NC	4			5	NC			

* Includes Exposed Thermal Pad (EP); see [Table 3-1](#).



[HOME](#)

[<< BACK](#)



MICROCHIP

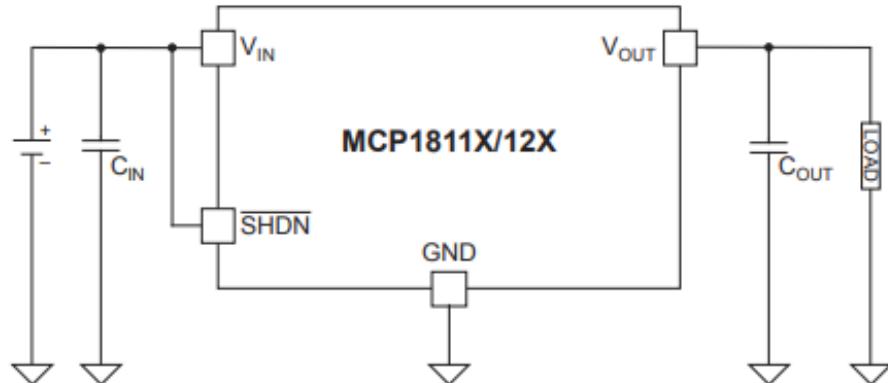
MCP1811

150mA Ultra Low Quiescent Current LDO

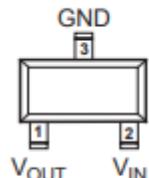
Online
Datasheet

Features:

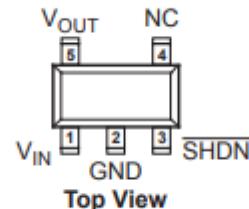
- Ultra Low Quiescent Current: 250nA typ
- Ultra Low Shutdown Current: 5nA typ
- Input Range: 1.8V to 5.5V
- Output Range: 1.0V to 4.0V
- Overcurrent Protection
- Stable with Ceramic Output Cap: 1uF
- Adaptive Current for Performance
- Available in following packages:
 - 1x1mm DFN
 - 3/5-lead SOT-23
 - 3/5-lead SC70



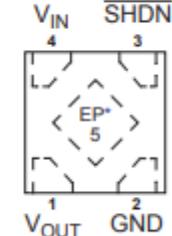
3-Lead SOT-23/SC70



5-Lead SOT-23/SC70



4-Lead 1x1 mm UDFN



* Includes Exposed Thermal Pad (see Table 3-1).

[HOME](#)

[<< BACK](#)



MICROCHIP

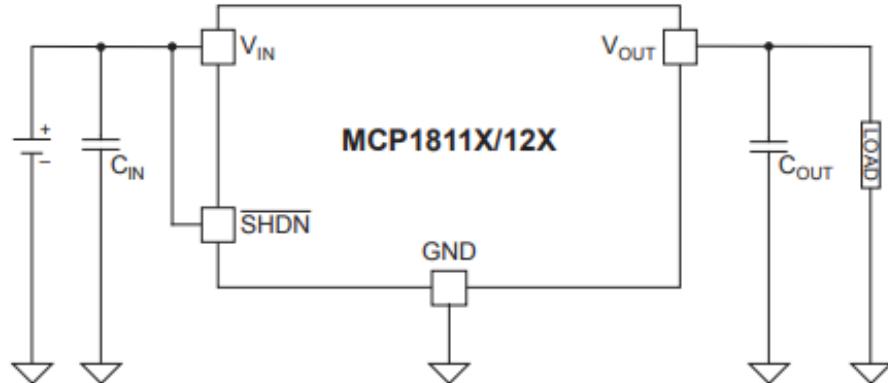
MCP1812

300mA Ultra Low Quiescent Current LDO

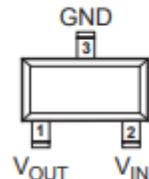
Online
Datasheet

Features:

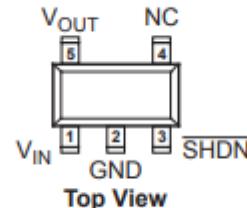
- Ultra Low Quiescent Current: 250nA typ
- Ultra Low Shutdown Current: 5nA typ
- 300mA Output
- Input Range: 1.8V to 5.5V
- Output Range: 1.0V to 4.0V
- Overcurrent Protection
- Stable with Ceramic Output Cap: 2uF
- Adaptive Current for Performance
- Available in following packages:
 - 1x1mm DFN
 - 3/5-lead SOT-23
 - 3/5-lead SC70



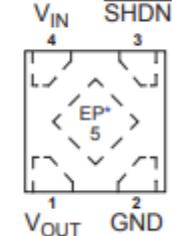
3-Lead SOT-23/SC70



5-Lead SOT-23/SC70



4-Lead 1x1 mm UDFN



* Includes Exposed Thermal Pad (see Table 3-1).

[HOME](#)

[<< BACK](#)