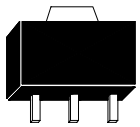
H7805AM
H7805BM

Low Current Positive Voltage Regulator Of Surface Mount Device



Description

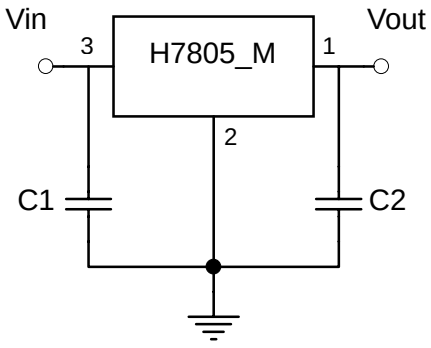
The H7805_M series of surface mount device regulators are easy-to-use devices suitable for multitude of applications that require a regulated supply of up to 100mA. These regulators feature internal current limiting and thermal shutdown making them remarkably rugged. No external components are required with the 780-5_M devices in many applications.
These devices offer a substantial performance advantage over the traditional zener diode resistor combination, as output impedance and quiescent current are substantially reduced.

- Wide Range Of Available, Fixed Output Voltages
- Internal Short-Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required

Absolute Maximum Ratings (Ta=25°C)

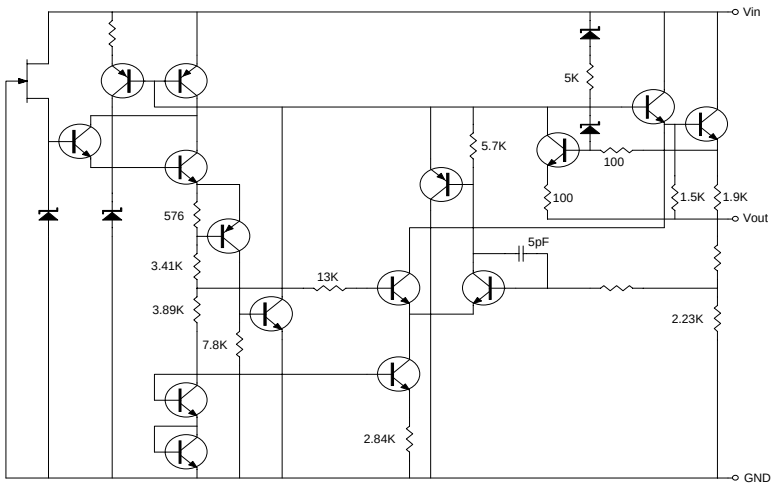
- Input Voltage..... 30 V (5V Through 9V), 35 V (12V Through 18V)
- Total Power Dissipation ..... Internal limit
- Operating Temperature Range ..... 0 °C to +70 °C
- Maximum Junction Temperature..... 125 °C
- Storage Temperature Range ..... -55 °C to +150 °C
- Lead Temperature (Soldering 10S)..... 260 °C

Typical Application



A common ground is required between the input and the output voltages. The input voltage must remain typically 2.0V above the output voltage even during the low point on the input ripple voltage.
Note : C1 and C2 are required if regulator is located far from power supply filter and load, or oscillation may induced on the loop.

Schematic Diagram



Electrical Characteristics

Vin=10V, Io=40mA, Tj=25°C Cin=0.33uF, Cout=0.1uF (unless otherwise noted)

Symbol	Parameter	Conditions	H7805AM			Units
			Min	Typ	Max	
Vo	Output Voltage	Tj=25°C	4.85	5	5.15	V
		7V≤Vin≤25V, 1mA≤Io≤40mA	4.75	5	5.25	
		1mA≤Io≤70mA	4.75	5	5.25	
ΔVo	Line Regulation	7V≤Vin≤20V	-	-	150	mV
		8V≤Vin≤20V	-	-	100	
ΔVo	Load Regulation	1mA≤Io≤100mA	-	-	60	mV
		1mA≤Io≤40mA	-	-	30	
IQ	Quiescent Current	Ta=25°C	-	-	5	mA
ΔIQ	Quiescent Current Change	8V≤Vin≤20V	-	-	1	mA
		1mA≤Io≤40mA	-	-	0.1	
Vn	Output Noise Voltage	10Hz≤f≤100KHz	-	40	-	uV
ΔVin / ΔVout	Ripple Rejection	8V≤Vin≤16V, f=120Hz	47	62	-	dB
Ipk	Peak Output Current	Ta=25°C	-	140	-	mA
VD	Dropout Voltage	Ta=25°C	-	1.7	-	V

Symbol	Parameter	Conditions	H7805BM			Units
			Min	Typ	Max	
Vo	Output Voltage	Tj=25°C	4.75	5	5.25	V
		7V≤Vin≤25V, 1mA≤Io≤40mA	4.75	5	5.25	
		1mA≤Io≤70mA	4.75	5	5.25	
ΔVo	Line Regulation	7V≤Vin≤20V	-	-	150	mV
		8V≤Vin≤20V	-	-	100	
ΔVo	Load Regulation	1mA≤Io≤100mA	-	-	60	mV
		1mA≤Io≤40mA	-	-	30	
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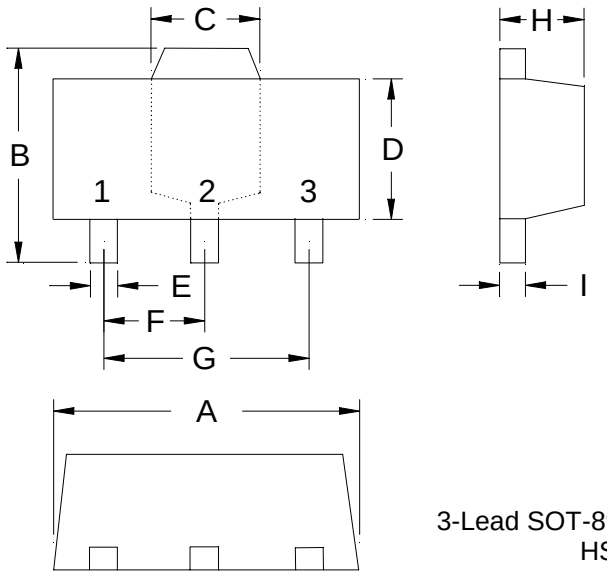
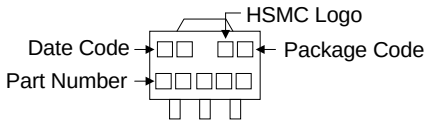
SOT-89 Dimension



Marking :



Style : Pin 1.Vout 2.Ground 3.Vin

3-Lead SOT-89 Plastic Surface Mounted Package
HSMC Package Code : M

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0583	0.0598	1.48	1.52
B	0.1594	0.1673	4.05	4.25	G	0.1165	0.1197	2.96	3.04
C	0.0591	0.0663	1.50	1.70	H	0.0551	0.0630	1.40	1.60
D	0.0945	0.1024	2.40	2.60	I	0.0138	0.0161	0.35	0.41
E	0.0141	0.0201	0.36	0.51					

Notes : 1.Dimension and tolerance based on our Spec. dated May. 05,1996.
2.Controlling dimension : millimeters.
3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

Head Office And Factory :

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