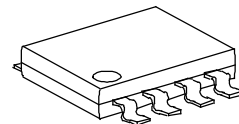


Low-Noise Step-Up Current Mode PWM IC**Preliminary****GENERAL DESCRIPTION**

The **FP6291** is a boost converter of current mode , PWM circuitry with a built-in 0.13Ω power MOSFET provides a highly efficient regulator. Selectable high switching frequency allows easy filtering, faster loop performance in a low noise output. The non-inverting input of error amplifier connects to a 1.238V precision reference voltage. Soft-Start is programmed with an external capacitor, which sets the input current ramp rate. Current mode control and external compensation network make it easy and flexible to stabilize the system. The **FP6291** is available in the MSOP-8L package, using of low ESR capacitors and reduced PCB space for the step-up application fields.

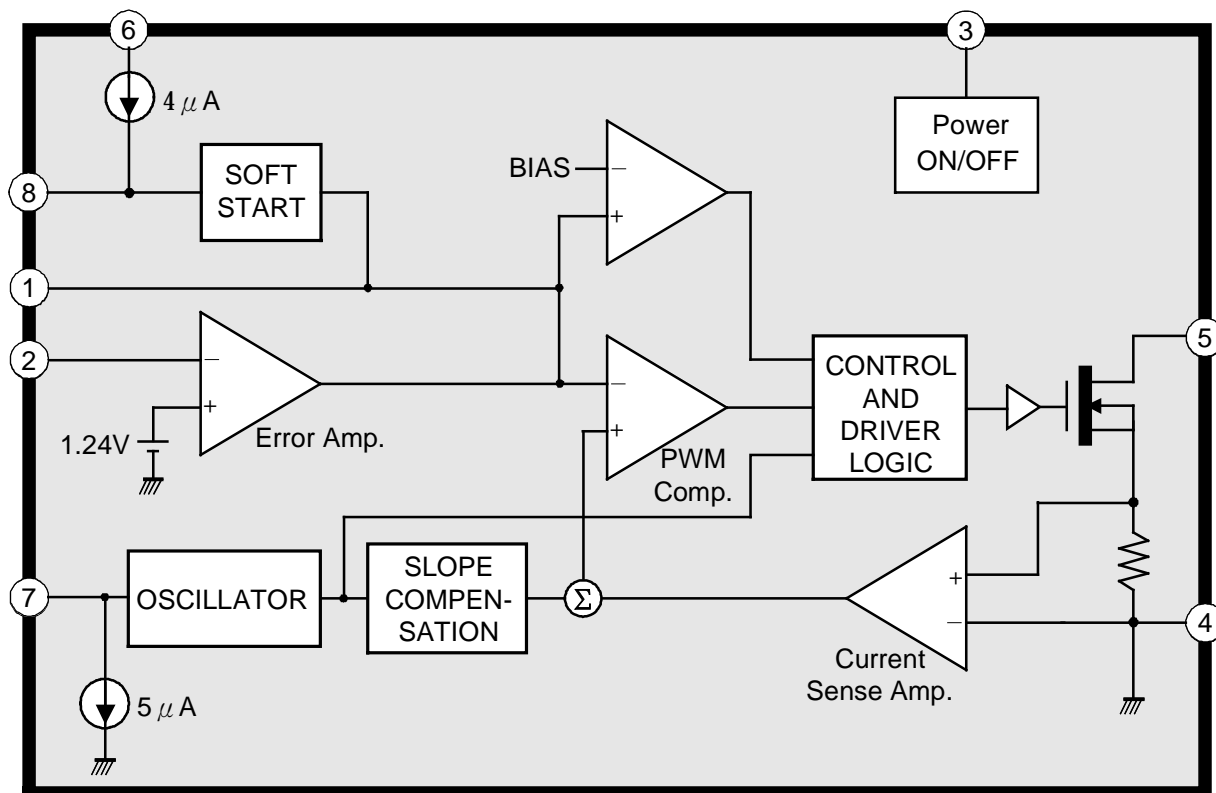
FEATURES

- Precision feedback reference voltage: 1.238V
- Current Limit Protection
- Internal fixed PWM frequency
- Pin control frequency: 640KHz/1.2MHz
- External Programmable Soft-Start function (SS)
- Internal 0.13Ω , 2.0A, 18.5V Power MOSFET
- Thermal Shutdown Protection
- Adjustable Output from VCC to 18.5V
- Package: MSOP8

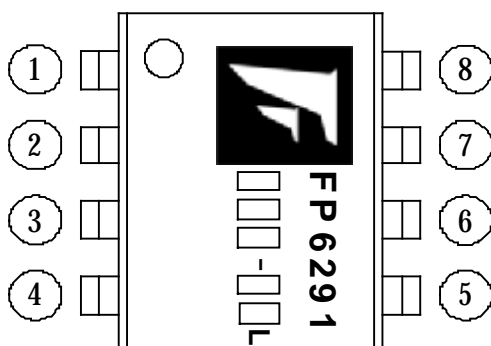
**MS OP 8****TYPICAL APPLICATION**

- LCD Display
- Digital Camera
- Hand-Held Device
- Portable product
- GPS Receiver

FUNCTIONAL BLOCK DIAGRAM



MARK VIEW



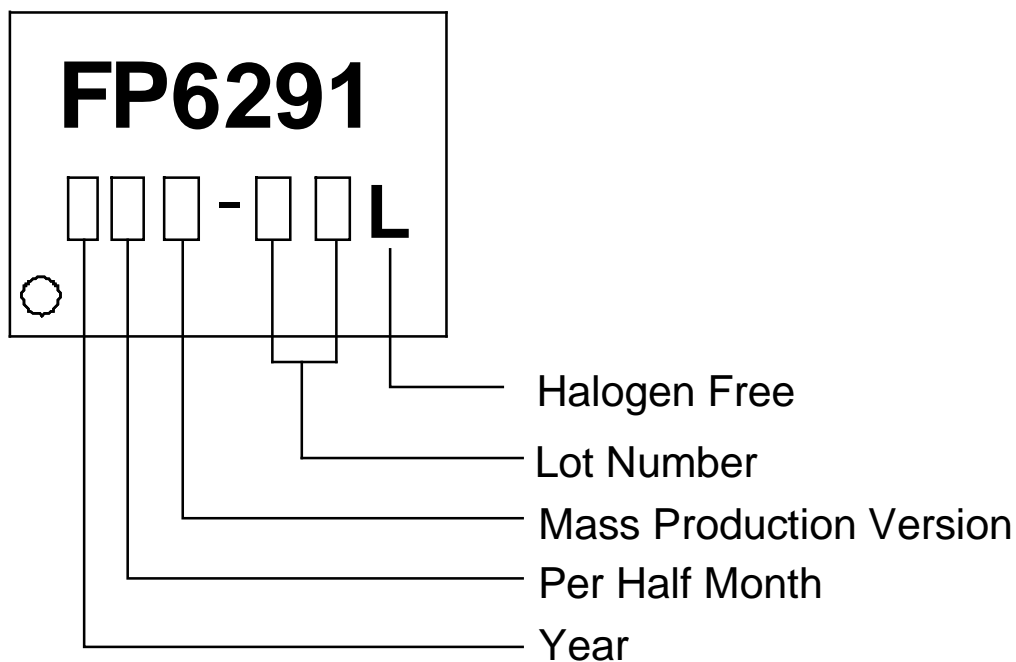
PIN DESCRIPTION

NAME	NO.	STATUS	DESCRIPTION
COMP	1	O	Error Amplifier Compensation Output
FB	2	I	Error Amplifier Inverting Input
EN	3	I	Enable Control
GND	4	P	IC Ground
LX	5	O	Switch Output
VCC	6	P	IC Power Supply
FREQ	7	O	Frequency Selection
SS	8	I	Soft-start Control

ORDER INFORMATION

Part Number	Operating Temperature	Package	Description
FP6291T-G	-40°C ~ +85°C	MSOP8	Tube
FP6291TR-G	-40°C ~ +85°C	MSOP8	Tape & Reel

IC DATE CODE DISTINGUISH



FOR EXAMPLE:

January A (Front Half Month), B (Last Half Month)
 February C, D
 March E, F -----And so on

Lot Number is the last two numbers

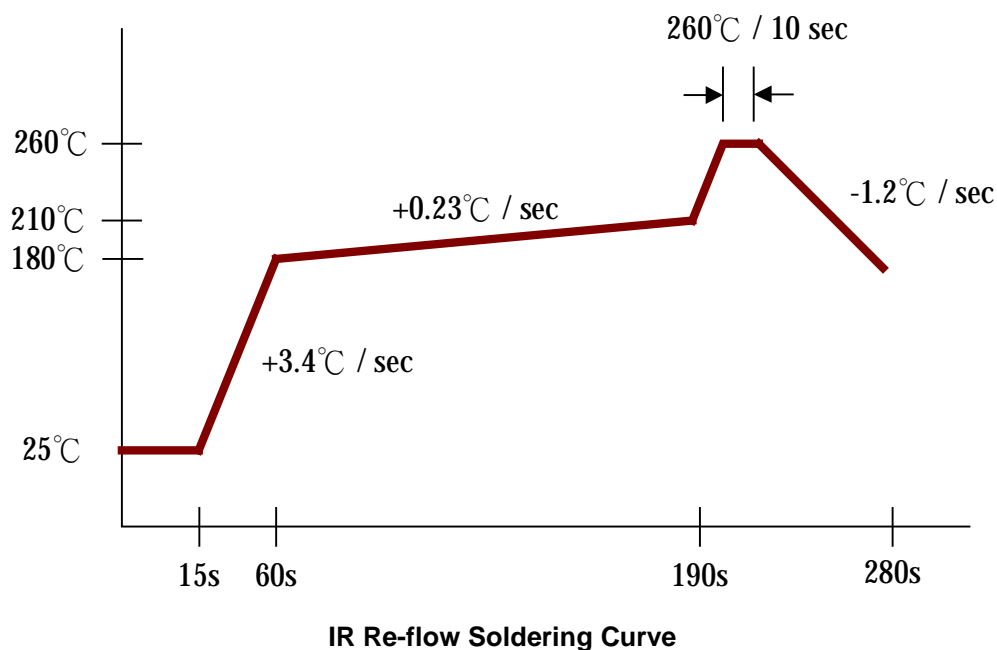
For Example:

A3311C62
 └─────────> Lot Number

ABSOLUTE MAXIMUM RATINGS

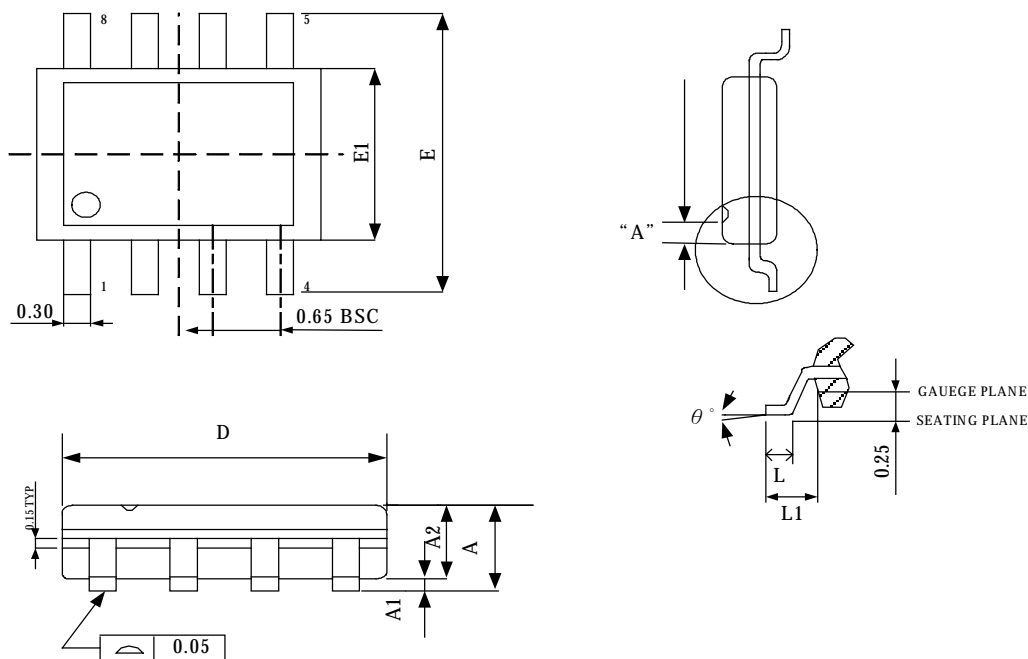
Supply Voltage (VCC)	-----	+6.0V
RMS LX Current	-----	2.0A
LX to GND	-----	-0.3V ~ +20V
SS,COMP to GND	-----	-0.3V ~ VCC+0.3V
EN,FREQ,FB to GND	-----	-0.3V ~ VCC
Allowable dissipation		
MSOP8 $T_a \leq +70^{\circ}\text{C}$	-----	330mW
Operating temperature	-----	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage temperature	-----	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
MSOP8 Lead Temperature (soldering, 10 sec)	-----	$+260^{\circ}\text{C}$

Recommend: IR Reflow



PACKAGE OUTLINE

MSOP-8L



SYMBOLS	MIN	MAX
A	-	1.10
A1	0.00	0.15
A2	0.75	0.95
D	3.00 BSC	
E	4.90 BSC	
E1	3.00 BSC	
L	0.40	0.80
L1	0.95 REF	
θ°	0	8

UNIT:MM

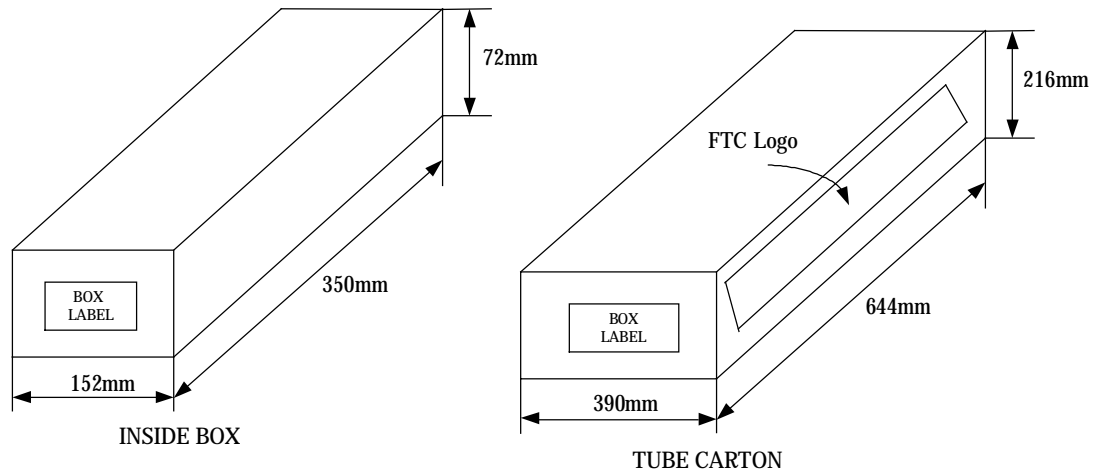
NOTE:

- 1.JEDEC OUTLINE:MO-187 AA
- 2.DIMENSIONS "D" DOES NOT INCLUDE MOLD FLASH,PROTRUSIONS OR GATE BURRS.MOLD FLASH,PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE
- 3.DIMENSIONS "E1" DOES NOT INCLUDE INTERLEAD FLASH,OR PROTRUSIONS. INTERLEAD FLASH OR PROTRUSIONS SHALL NOT EXCEED 0.25 PER SIDE.
- 4.DIMENSIONS "0.22" DOES NOT INCLUDE DAMBAR PROTRUSIONS.ALLOWABLE DAMBAR PROTRUSIONS SHALL BE 0.08 MM TOTAL IN EXCESS OF THE '0.22' DIMENSION AT MAXIMUM MATERIAL CONDITION.DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OF THE FOOT.MINIMIM SPAC BETWEEN PROTRUSION AND ADJACENT LEAD IS 0.07MM.
- 5.DIMENSIONS "D" AND 'E1' TO BE DETERMINED AT DATUM PLANE H

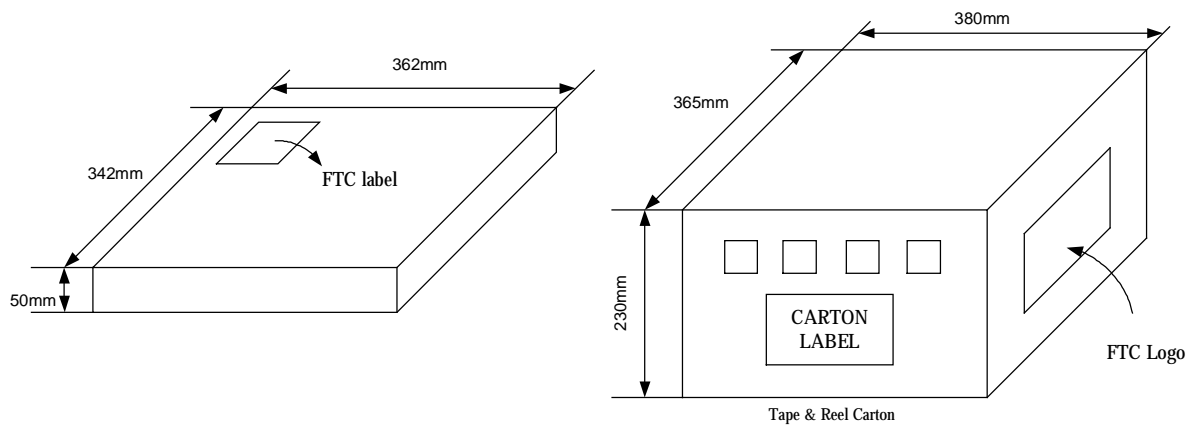
PACKING SPECIFICATIONS

BOX DIMENSION

TUBE INSIDE BOX AND CARTON



TAPE AND REEL INSIDE BOX AND CARTON



PACKING QUANTITY SPECIFICATIONS

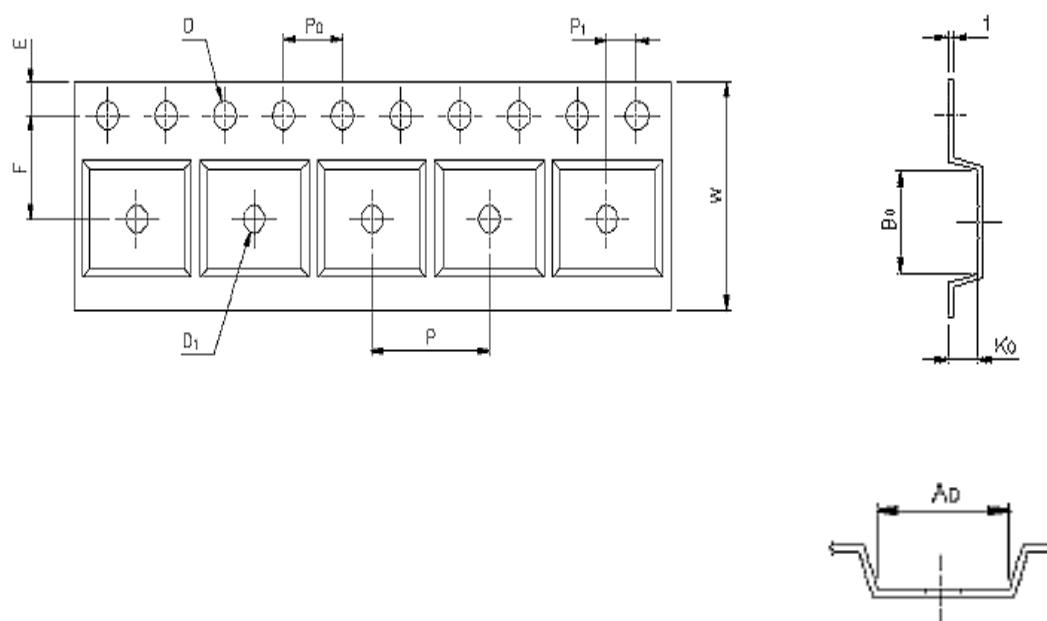
80 EA/TUBE	2500 EA / REEL
200 TUBES / INSIDE BOX	4 INSIDE BOXES / CARTON
8 INSIDE BOXES / CARTON	

MSOP8

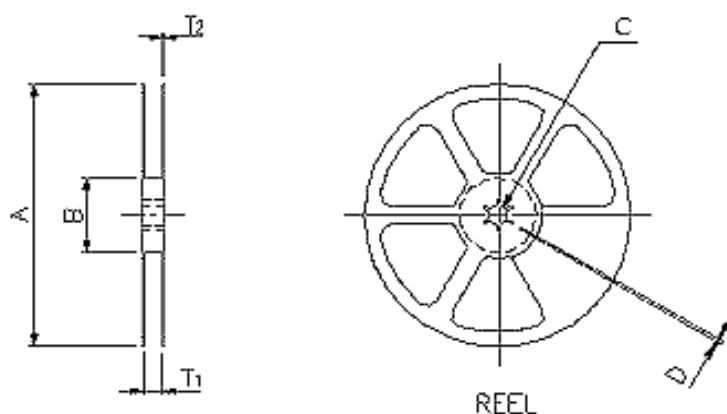
CARRIER TAPE DIMENSIONS

APPLICATION	W	P	E	F	D	D ₁
MSOP8	12.0±3	8.0	1.75±1.0	5.5±0.5	1.5 ^{+0.1}	1.50

APPLICATION	P ₀	P ₁	A _D	B ₀	K ₀	t
MSOP8	4.0±0.1	2.0±0.5	4.20	3.30	1.20	0.30±0.5



REEL DIMENSIONS



APPLICATION	MATERIAL	A	B	C	D	T ₁	T ₂
MSOP8	PLASTIC REEL	330±1	62±1.5	12.75 ^{+0.15}	2±0.15	12.4 ^{+0.2}	16.8 ^{-0.4}