

RoHS Compliant Product

Description

The SJ1212 is a low dropout positive 1.2V output regulator with min. of 1A output current capability. The product is specifically designed to provide well-regulated supply for low voltage IC applications. The device is also well suited for other applications such as VGA cards. SJ1212 is guaranteed to have lower than 1.4V dropout at full load current making it ideal to provide well-regulated outputs of 1.2V with 2.6V to 12V input supply.

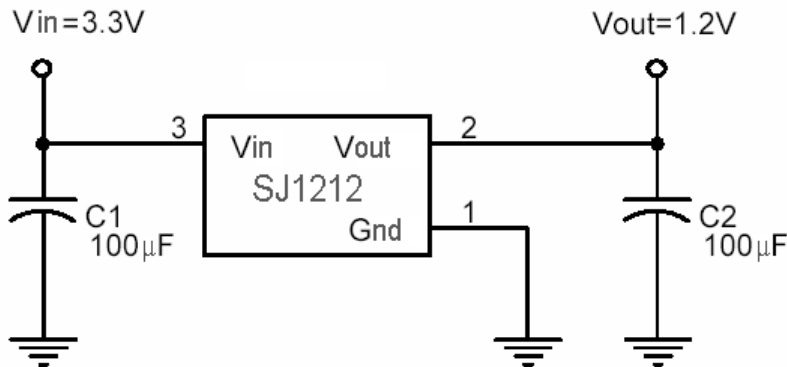
Features

- 1.4V max. dropout voltage
- Fixed 1.2V +/- 2% output voltage
- Output current limiting
- Good noise rejection
- Fast transient response
- Built-in thermal shutdown

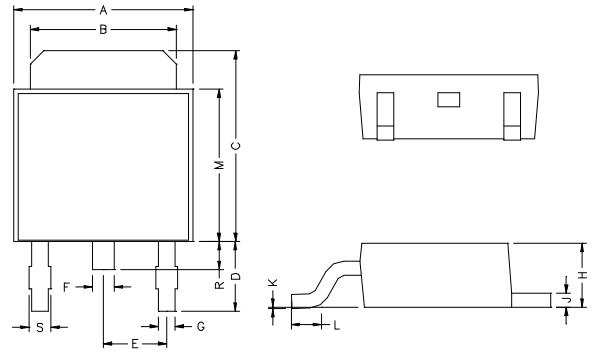
APPLICATIONS

- PC peripheral
- Communication

TYPICAL CIRCUIT

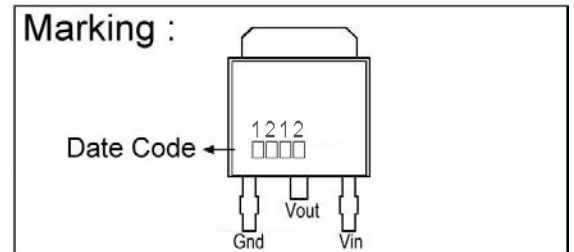


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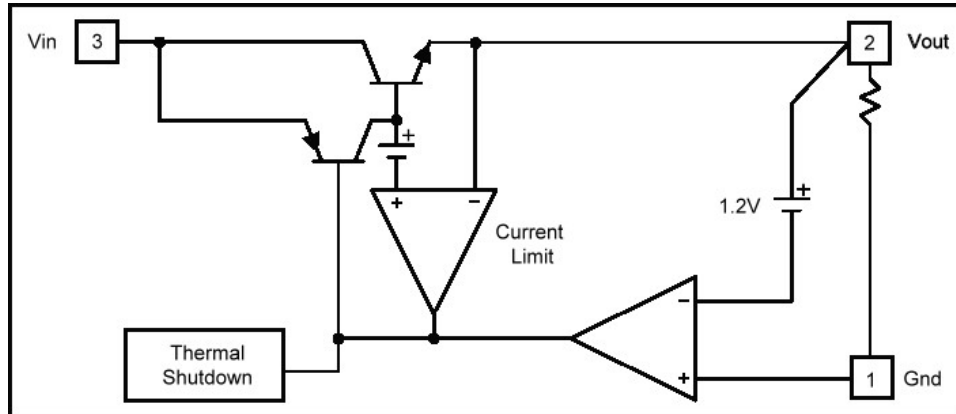


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.80	G	0.50	0.70
B	5.20	5.50	H	2.20	2.40
C	6.80	7.20	J	0.45	0.55
D	2.20	2.80	K	0	0.15
E	2.30 REF.		L	0.90	1.50
F	0.70	0.90	M	5.40	5.80
S	0.60	0.90	R	0.80	1.20

Marking :



BLOCK DIAGRAM



PIN DESCRIPTIONS

NAME	I/O	PIN #	FUNCTION
Gnd		1	A resistor divider from his pin to the Vout pin and ground sets the output voltage.
Vout	O	2	The output of the regulator. A min. of 10 μ F capacitor ($0.1 \Omega \leq ESR \leq 20 \Omega$) must be connected from this pin to ground to insure stability.
Vin	I	3	The input pin of regulator. Typically a large storage capacitor ($0.1 \mu F \leq ESR \leq 20 \mu F$) is connected from this pin to ground to insure that the input voltage does not sag below the min. dropout voltage during the load transient response. This pin must always be 1.4 V higher than Vout in order for the device to regulate properly.

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
DC Supply Voltage	Vin	-0.3 ~ 15	V
Power Dissipation TA = 25 °C	Pd	1050	mW
Storage Temperature	TST	-65 ~ +150	°C
Max. Junction Temp., Operating Junction Temperature Range	TOP, TMJ	150, 0 ~ +125	°C

ELECTRICAL CHARACTERISTICS (under operating conditions)

PARAMETER	Min.	Typ.	Max.	UNIT	TEST CONDITIONS
Operation Input Voltage	2.6	-	12	V	
Output Voltage	1.175	1.200	1.225	V	Io=10mA, Tj=25 °C, 2.6V \leq Vin \leq 12V
Line Regulation	-	0.1	0.5	%	Io=10mA, 2.6V \leq Vin \leq 12V, Tj=25 °C (Note)
Load Regulation	-	-	1	%	Vin=2.6V, 0mA \leq Io \leq 1A, Tj=25 °C (Note)
Dropout Voltage (VIN - VOUT)	-	1.3	1.4	V	Io=1A, (Δ Vout=0.1% Vout)
Current Limit	1.1	-	-	A	Vin - Vout = 5V
Quiescent Current	-	-	12	mA	Vin=12V, Io=0mA
Ripple Rejection	-	60	70	dB	F=120Hz, Cout=25 μ F Tantalum, Iout=1A, Vin=5V
Temperature Stability	-	0.5	-	%	Io=10mA
θ JA Thermal Resistance Junction-to-Ambient (No heat sink; No air flow)	-	92	-	°C/W	
θ JC Thermal Resistance Junction-to-Case	-	10	-	°C/W	

Note: Line and load regulation are guaranteed up to the max. PD of 15W, PD is determined by the difference in input and output and the Io. Guaranteed max. PD will not be available over the full input/output range.

TYPICAL CHARACTERISTICS

