DA78L12

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

These regulators empoly internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver up to 100mA output current, if the case temperature can keep in T_C=25°C. They are intended as fixed voltage regulators in a wide range of applications including local(on-card) regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used with power pass elements to make high-current voltage regulators.

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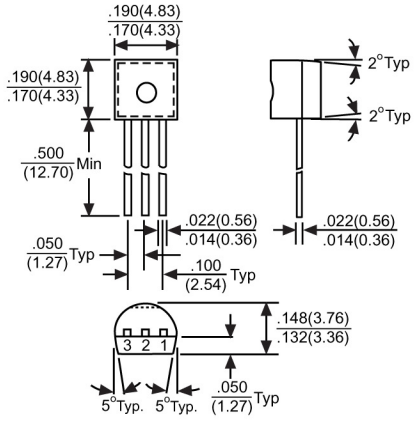

Dimensions in inches and (millimeters)

Pinning

1 = Output
2 = Ground
3 = Input

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Input Voltage	V_I	35	V
Input Current	I_O	100	mA
Operating Temperature Range	T_{opr}	0 to +125	°C
Maximum Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics

(V_{in}=19V, I_{out}=40mA, 0°C≦T_J≦125°C, C_{in}=0.33μF, C_{out}=0.1μF, unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	V_O	11.50	12.00	12.50	mV	T_J=25°C
		11.40	-	12.60		1mA≦I_O≦70mA
		11.40	-	12.60		1mA≦I_O≦40mA, 14.5V≦V_{in}≦27V
Line Regulation	Reg_{line}	-	55	250	mV	T_J=25°C, 14.5V≦V_{in}≦27V
		-	49	200		T_J=25°C, 16V≦V_{in}≦27V
Load Regulation	Reg_{load}	-	13	50	mV	T_J=25°C, 1mA≦I_O≦40mA
		-	22	100		T_J=25°C, 1mA≦I_O≦100mA
Quiescent Current	I_Q	-	4.3	6.5	mA	T_J=25°C
Quiescent Current Change	ΔI_Q	-	-	0.1	mA	1mA≦I_O≦40mA
		-	-	1.5		16V≦V_{in}≦27V
Output Noise Voltage	V_N	-	70	-	μV	T_J=25°C, 10Hz≦f≦100KHz
Ripple Rejection	RR	37	42	-	dB	15V≦V_{in}≦25V, f=120Hz
Dropout Voltage	V_D	-	1.7	-	V	T_J=25°C