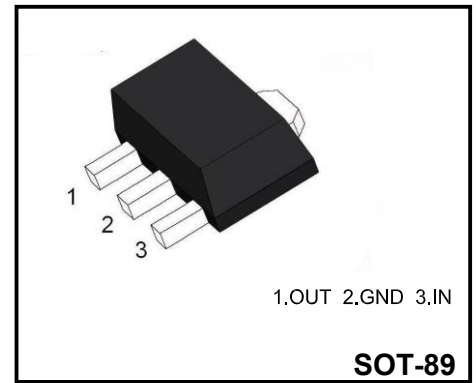


Encapsulate Three Terminal Voltage Regulators

Three-terminal positive voltage regulator

FEATURES

- ◆ Maximum output current
 I_{OM} : 0.1 A
- ◆ Output voltage
 V_O : 18 V
- ◆ Continuous total dissipation
 P_D : 0.5 W



Marking Code	
78L18SI	78L18

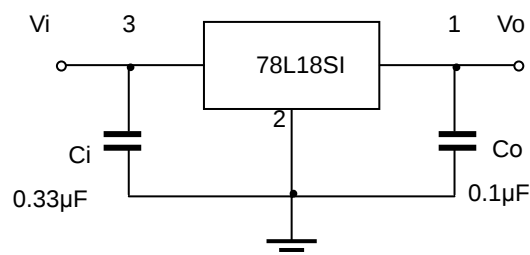
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=26V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25°C	17.3	18	18.7	V
		20.5V≤Vi≤33V, Io=1mA-40mA	0-125°C	17.1	18	18.9	V
		Vi=26V, Io=1mA-70mA		17.1	18	18.9	V
Load Regulation	△Vo	Io=1mA-100mA, Vi=26V	25°C		27	180	mV
		Io=1mA-40mA, Vi=26V	25°C		19	90	mV
Line regulation	△Vo	20.5V≤Vi≤33V,Io=40mA	25°C		70	360	mV
		22V≤Vi≤33V, Io=40mA	25°C		64	300	mV
Quiescent Current	Iq		25°C		4.7	6.5	mA
Quiescent Current Change	△Iq	22V≤Vi≤33V, Io=40mA	0-125°C			1.5	mA
	△Iq	1mA≤Io≤40mA, Vi=26V	0-125°C			0.1	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25°C		89		μV
Ripple Rejection	RR	21.5V≤Vi≤31.5V,f=120Hz	0-125°C	32	36		dB
Dropout Voltage	Vd	Tj=25°C	25°C		1.7		V

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Ordering information

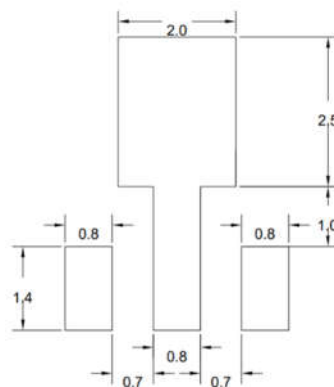
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

Disclaimer

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