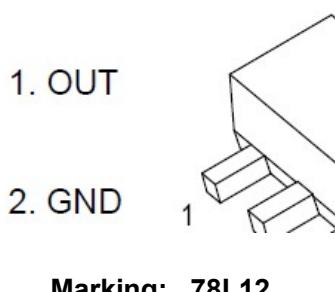


Three-terminal positive voltage regulator
SOT-89-3L

特征 Features

- Maximum output current I_{OM} : 0.1A
- Output voltage V_o : 12V
- Continuous total dissipation P_D : 0.6W ($T_a=25^\circ C$)

机械数据 Mechanical Data

- SOT-89-3L Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

Absolute Maximum Ratings (Operating temperature Range applies unless otherwise specified.)

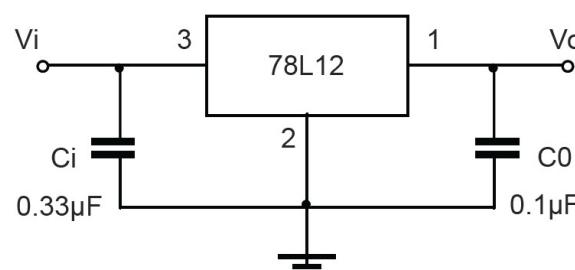
Parameters	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	166.7	°C/W

Electrical Characteristics at Specified Virtual Junction Temperature

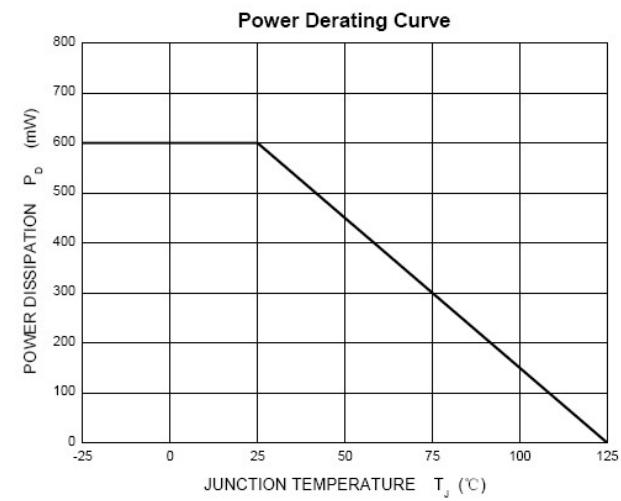
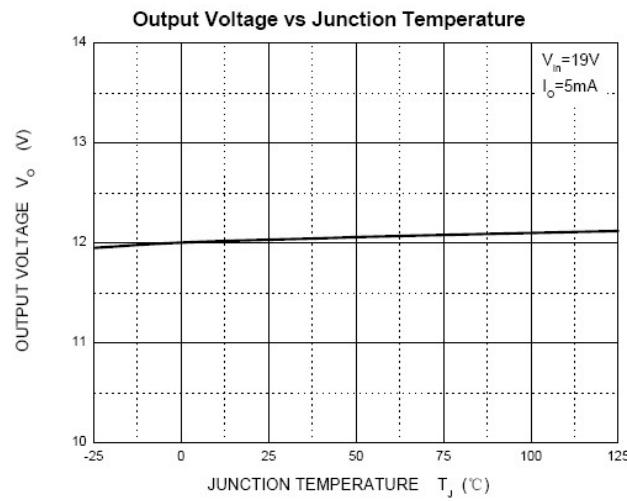
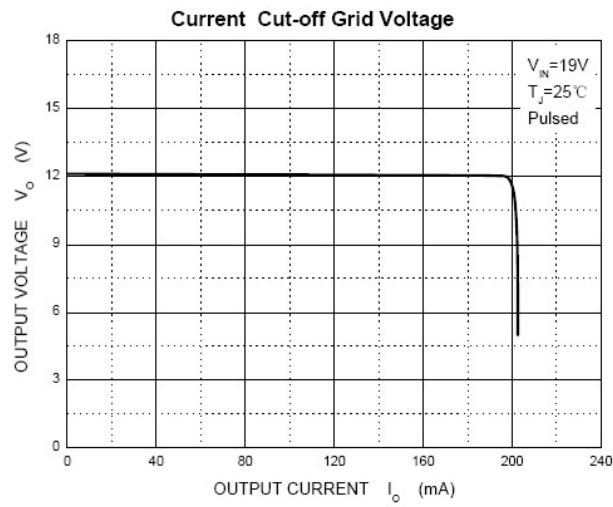
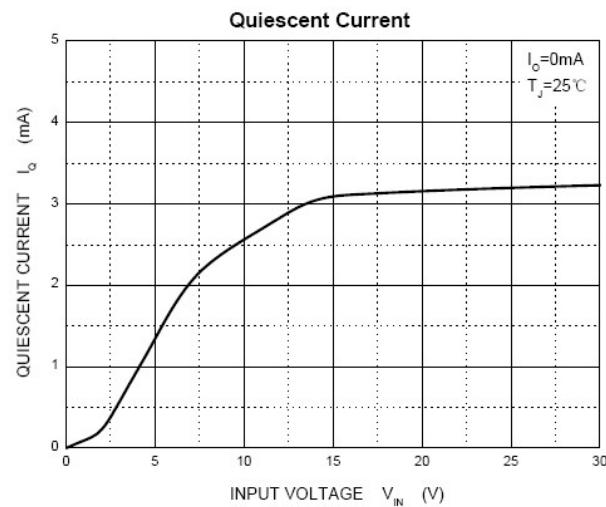
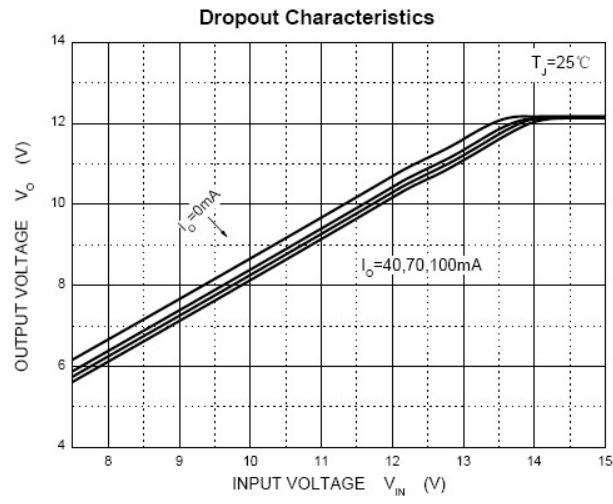
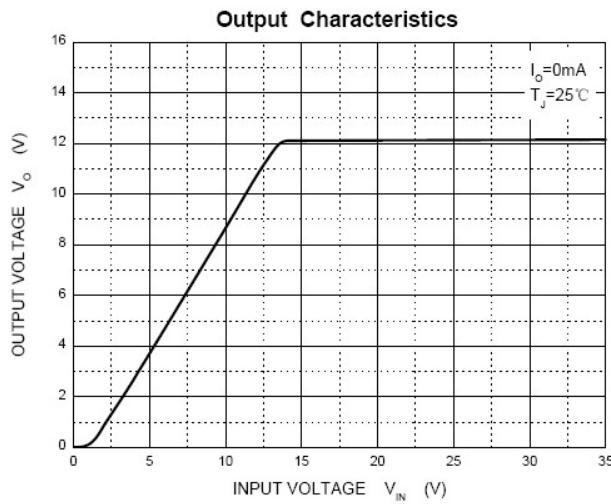
($V_i=19V$, $I_o=40mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified).

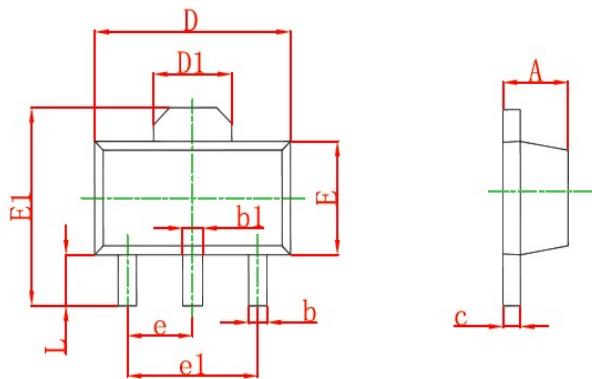
Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Output Voltage	V_o		25°C	11.5	12	12.5
		$14V \leq V_i \leq 27V, I_o = 1mA \sim 40mA$	0~125°C	11.4	12	12.6
		$I_o = 1mA \sim 70mA$		11.4	12	12.6
Load Regulation	ΔV_o	$I_o = 1mA \sim 100mA$	25°C	22	100	mV
		$I_o = 1mA \sim 40mA$	25°C	13	50	mV
Line Regulation	ΔV_o	$14.5V \leq V_i \leq 27V$	0~125°C	55	250	mV
		$16V \leq V_i \leq 27V$	25°C	49	200	mV
Quiescent Current	I_q		25°C	4.3	6.5	mA
Quiescent Current Change	ΔI_q	$16V \leq V_i \leq 27V$	0~125°C		1.5	mA
		$1mA \leq V_i \leq 40mA$	0~125°C		0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C	70		uV/Vo
Ripple Rejection	RR	$15V \leq V_i \leq 25V, f = 120Hz$	25°C	37	42	dB
Dropout Voltage	V_d		25°C		1.7	V

* Pulse test.

TYPICAL APPLICATION


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

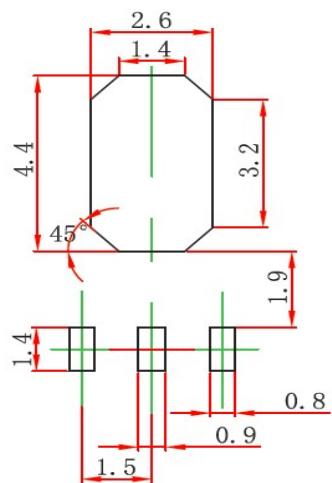
Typical characteristics


SOT-89-3L PACKAGE OUTLINE Plastic surface mounted package


Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550	REF.	0.061	REF.
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500	TYP.	0.060	TYP.
e1	3.000	TYP.	0.118	TYP.
L	0.900	1.200	0.035	0.047

Precautions: PCB Design

Recommended land dimensions for SOT-89-3L diode. Electrode patterns for PCBs


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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