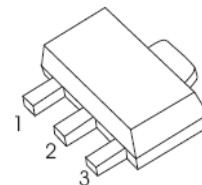


Three-terminal positive voltage regulator

FEATURES

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

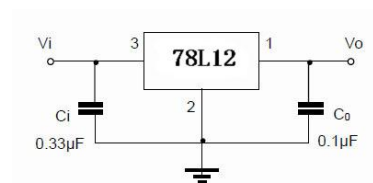
SOT-89-3L



1. OUT
2. GND
3. IN

MARKING : 78L12

TYPICAL APPLICATION



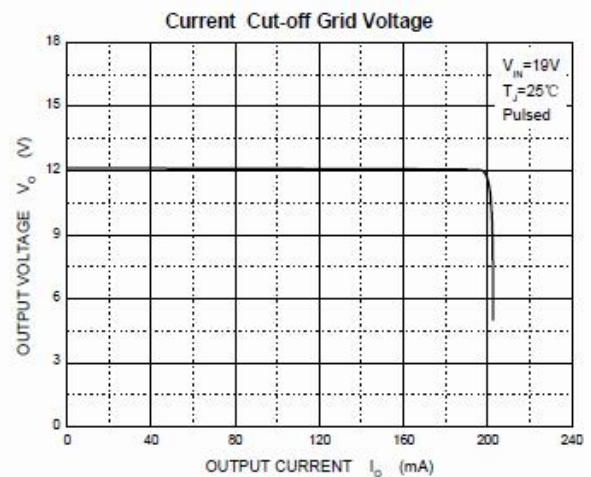
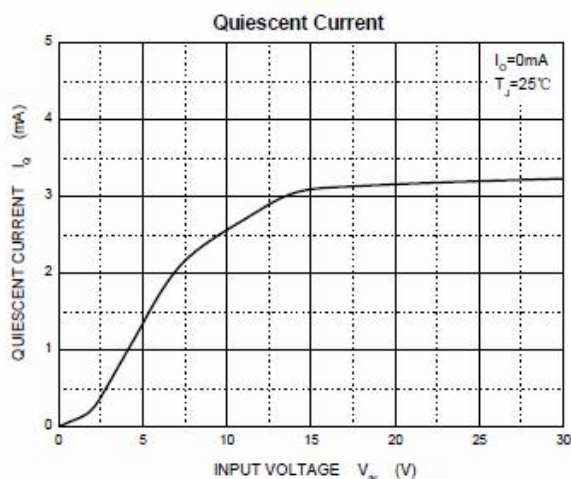
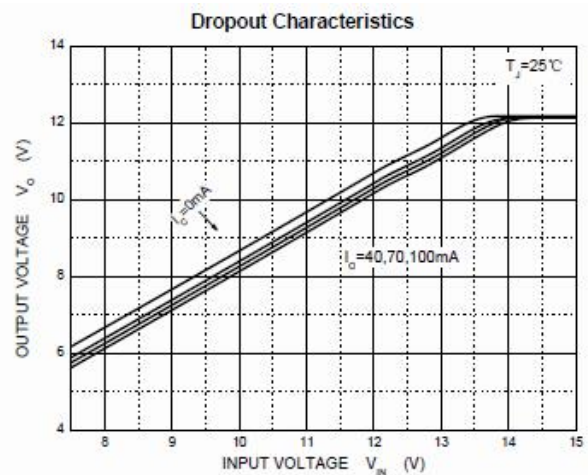
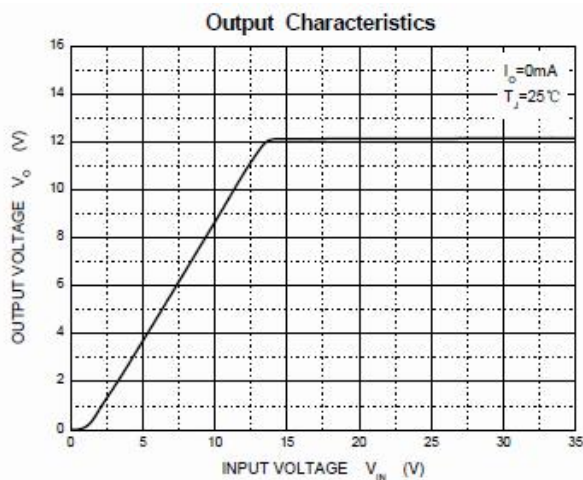
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Value
Maximum Input Voltage	V_{in}	30	V
Maximum output current	I_{om}	0.1	A
Power Dissipation	P_D	600	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	166.7	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	0~150	$^\circ\text{C}$
Operating Temperature Range	T_g	-25~125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$

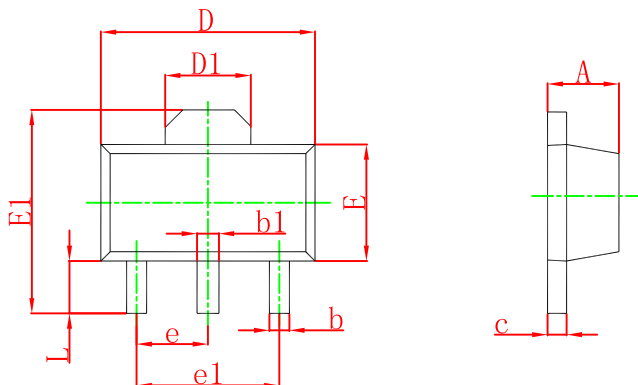
ELECTRICAL CHARACTERISTICS $T_A=25^\circ\text{C}$
($T_J=25^\circ\text{C}$, $I_{\text{out}}=0.5\text{A}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V_{out}	Output Voltage		11.5	12	12.5	V
		$V_{\text{in}}=14\text{--}27\text{V}$, $I_{\text{out}}=1\text{mA--}40\text{mA}$	11.4	12	11.6	V
		$I_{\text{out}}=1\text{mA--}70\text{mA}$	11.4	12	11.6	V
Regline	Linear regulation	$V_{\text{in}}=14\text{V--}27\text{V}$,		55	250	mV
		$V_{\text{in}}=16\text{V--}27\text{V}$,		49	200	mV
Regload	Load regulation	$I_{\text{out}}=1\text{mA--}100\text{mA}$		22	100	mV
		$I_{\text{out}}=1\text{mA--}40\text{mA}$		13	50	mV
I_{Q}	Quiescent Current	$V_{\text{in}}=14\text{V--}27\text{V}$, $I_{\text{out}}=1\text{mA--}100\text{mA}$			6.5	mA
ΔI_{Q}	Quiescent Current Change	$V_{\text{in}}=16\text{V--}27\text{V}$,			1.5	mA
ΔI_{Q}		$I_{\text{out}}=1\text{mA--}40\text{mA}$			0.1	mA
V_{D}	Dropout Voltage				1.7	V

TYPICAL CHARACTERISTICS



SOT-89-3L PACKAGE OUTLINE DRAWING



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