

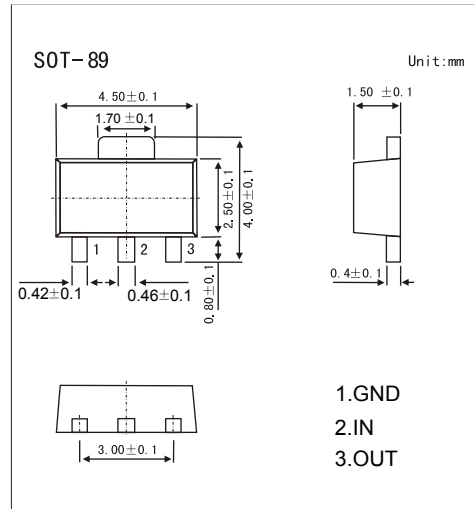


SOT-89 Encapsulate Three Terminal Voltage Regulator

79L12

■ Features

- Maximum Output current I_{OM} : 0.1 A
- Output voltage V_o : -12 V
- Continuous total dissipation P_D : 0.5 W



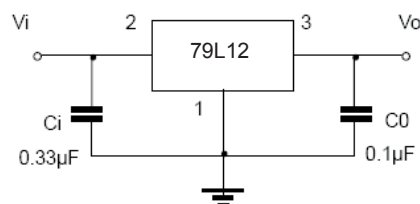
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Input Voltage	V_I	-35	V
Operating Junction Temperature Range	T_{OPR}	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics ($V_I=19\text{V}, I_o=40\text{mA}, 0^\circ\text{C} < T_j < 125^\circ\text{C}, C_1=0.33 \mu\text{F}, C_o=0.1 \mu\text{F}$, unless otherwise specified)

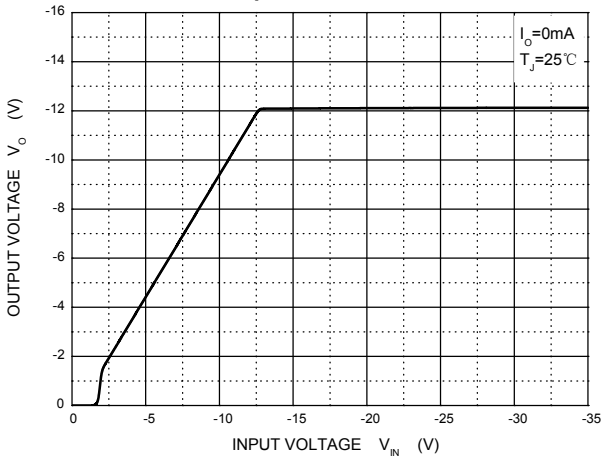
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25^\circ\text{C}$	-11.5	-12	-12.5	V
		$-14.5\text{V} \leq V_I \leq -27\text{V}, I_o=1\text{mA}-40\text{mA}$	-11.4	-12	-12.6	V
		$I_o=1\text{mA}-70\text{mA}$	-11.4	-12	-12.6	V
Load Regulation	ΔV_o	$T_j=25^\circ\text{C}, I_o=1\text{mA to } 100\text{mA}$		24	100	mV
		$T_j=25^\circ\text{C}, I_o=1\text{mA to } 40\text{mA}$		15	50	mV
Line regulation	ΔV_o	$-14.5\text{V} \leq V_I \leq -27\text{V}, T_j=25^\circ\text{C}$		50	250	mV
		$-16\text{V} \leq V_I \leq -27\text{V}, T_j=25^\circ\text{C}$		40	200	mV
Quiescent Current	I_q	25°C			6.5	mA
Quiescent Current Change	ΔI_q	$0^\circ\text{C} < T_j < 125^\circ\text{C}, -16\text{V} \leq V_I \leq -27\text{V}$			1.5	mA
	ΔI_q	$0^\circ\text{C} < T_j < 125^\circ\text{C}, 1\text{mA} \leq I_o \leq 40\text{mA}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}, T_j=25^\circ\text{C}$		80		μV
Ripple Rejection	R_R	$-15\text{V} \leq V_I \leq -25\text{V}, f=120\text{Hz}$	37	42		dB
Dropout Voltage	V_d	$T_j=25^\circ\text{C}$		1.7		V

■ Typical Application

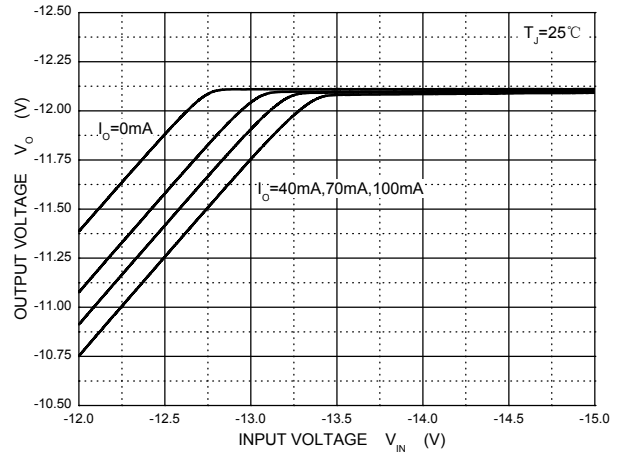


Typical Characteristics

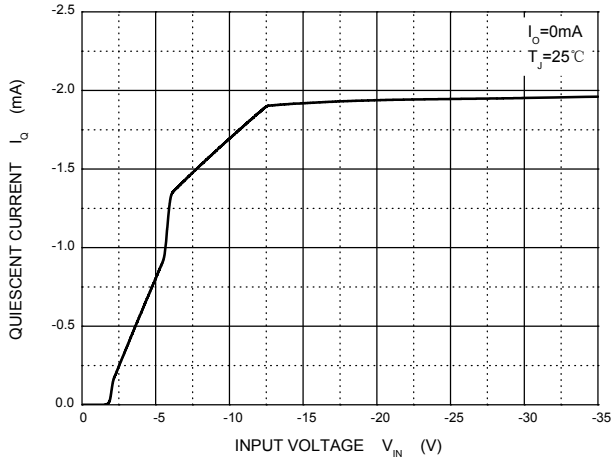
Output Characteristics



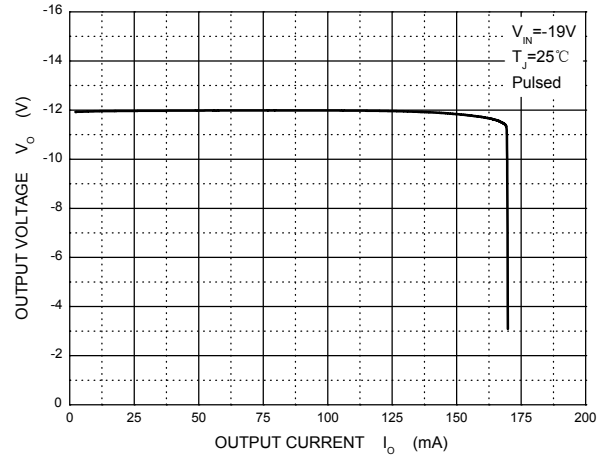
Dropout Characteristics



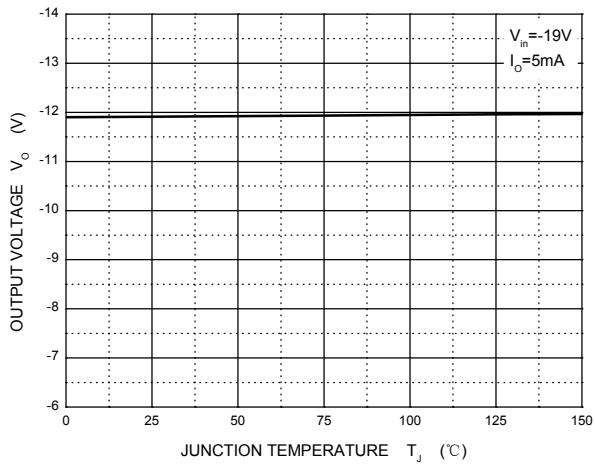
Quiescent Current vs Input Voltage



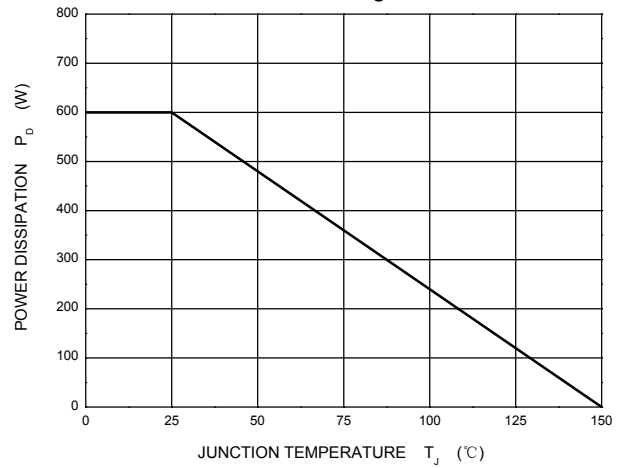
Current Cut-off Grid Voltage



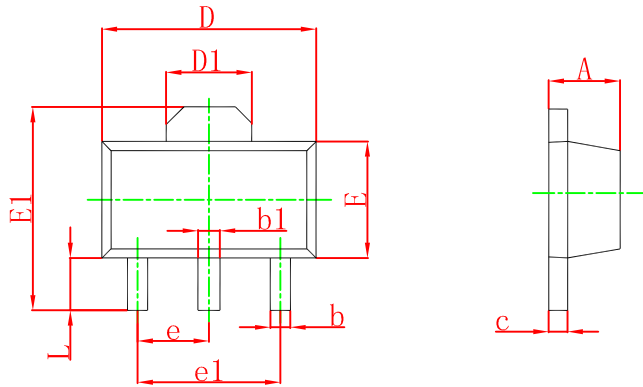
Output Voltage vs Junction Temperature



Power Derating Curve

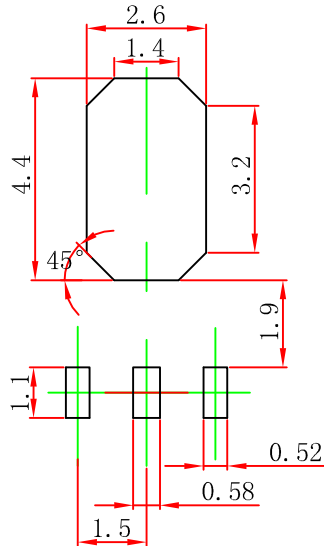


SOT-89-3L Package Outline Dimensions



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

SOT-89-3L Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.