

■ Features

Maximum Output current

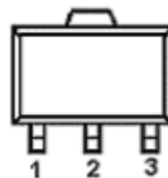
I_{OM} : 0.1 A

Output voltage

V_O : 12 V

Continuous total dissipation

P_D : 0.50 W



1.OUT
2.GND
3.IN

Marking: 78L12

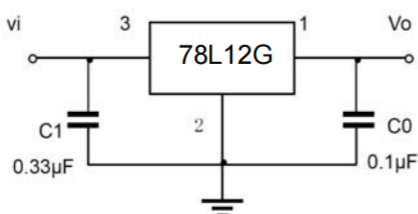
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	$0 \sim +150$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

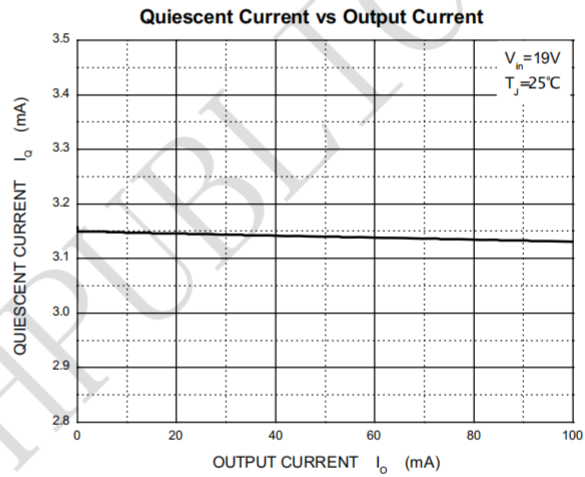
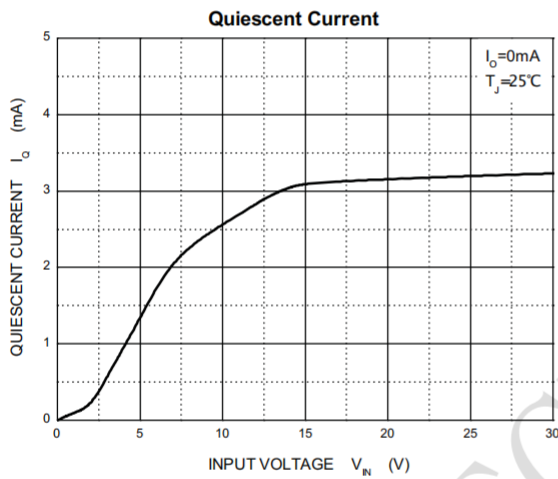
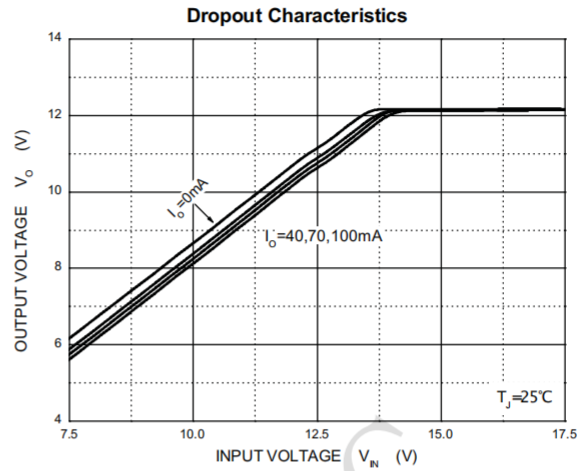
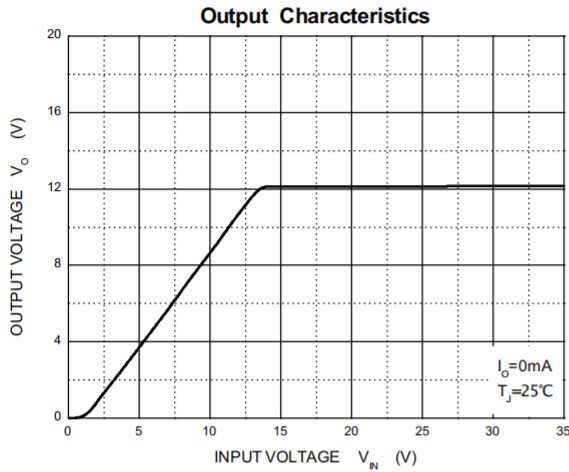
■ Electrical Characteristics ($V_I=10\text{V}$, $I_O=40\text{mA}$, $0^\circ\text{C} < T_J < 125^\circ\text{C}$, $C_1=0.33\mu\text{F}$, $C_O=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	25°C	11.5	12	12.5	V
		$14\text{V} \leq V_I \leq 27\text{V}$, $I_O=1\text{mA}-40\text{mA}$	11.4	12	12.6	V
		$I_O=1\text{mA}-70\text{mA}$	11.4	12	12.6	V
Load Regulation	ΔV_O	$I_O=1\text{mA}-100\text{mA}$, 25°C		22	100	mV
		$I_O=1\text{mA}-40\text{mA}$, 25°C		13	50	mV
Line regulation	ΔV_O	$14.5\text{V} \leq V_I \leq 27\text{V}$, 25°C		55	250	mV
		$16\text{V} \leq V_I \leq 27\text{V}$, 25°C		49	200	mV
Quiescent Current	I_q	25°C		4.3	6.5	mA
Quiescent Current Change	ΔI_q	$16\text{V} \leq V_I \leq 27\text{V}$, $0-125^\circ\text{C}$			1.5	mA
	ΔI_q	$1\text{mA} \leq I_O \leq 40\text{mA}$, $0-125^\circ\text{C}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$, 25°C		70		μV
Ripple Rejection	RR	$15\text{V} \leq V_I \leq 25\text{V}$, $f=120\text{Hz}$, $0-125^\circ\text{C}$	37	42		dB
Dropout Voltage	V_d	25°C		1.7		V

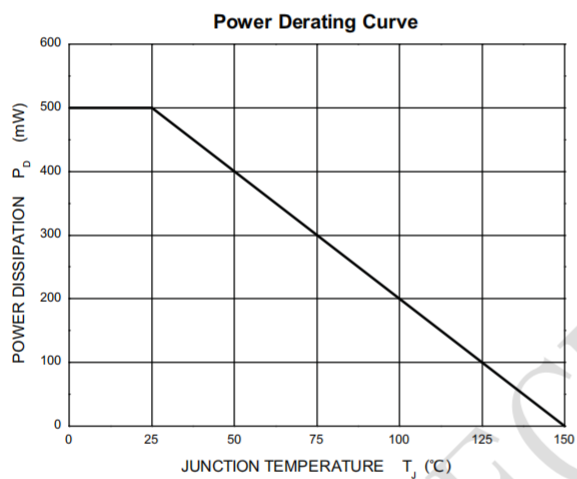
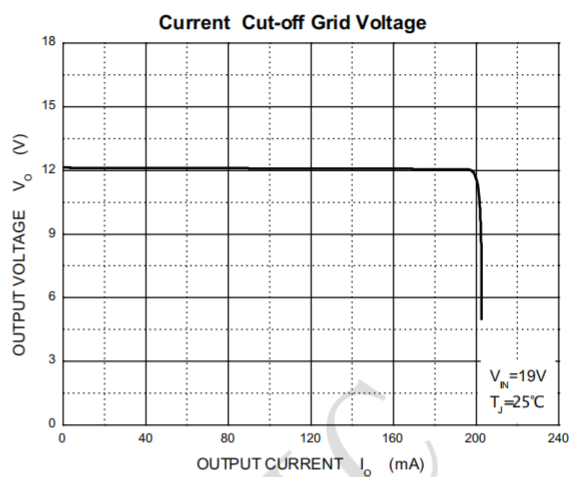
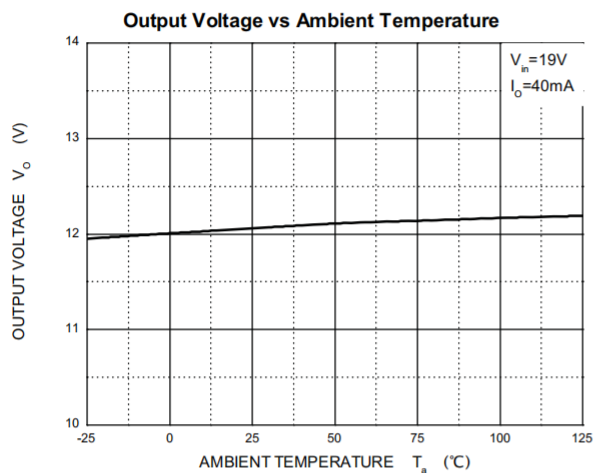
■ Typical application.



Typical Electrical Characteristic Curves



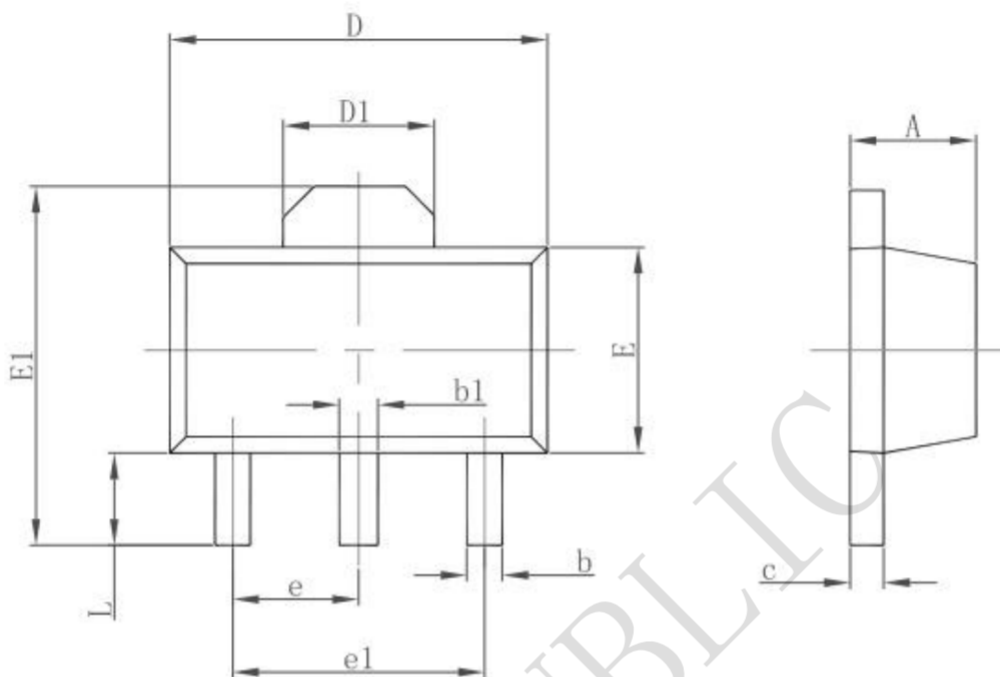
Typical Electrical Characteristic Curves



Package information

www.sot23.com.tw

SOT89-3



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