

## SOT-23 Plastic-Encapsulate Voltage Regulators

### 79L12 Three-terminal positive voltage regulator

#### FEATURES

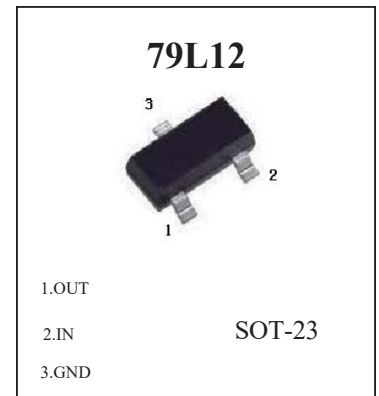
Maximum Output current  $I_O$ : 0.1 A

Output voltage  $V_O$ : -12 V

Continuous total dissipation  $P_D$ : 0.35 W ( $T_a=25^\circ\text{C}$ )

#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	-35	V
Operating Junction Temperature Range	$T_{OPR}$	0-150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65-150	$^\circ\text{C}$

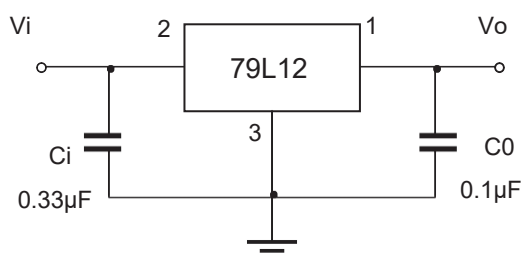


#### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=-19\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	$V_o$	$25^\circ\text{C}$	-11.5	-12.0	-12.5	V	
		0-125 $^\circ\text{C}$	-14V $\leq V_i \leq$ -27V, $I_o=1\text{mA}\sim 40\text{mA}$	-11.4	-12.0	-12.6	V
			$I_o=1\text{mA}\sim 70\text{mA}$	-11.4	-12.0	-12.6	V
Load Regulation	$\Delta V_o$	$I_o=1\text{mA}\sim 100\text{mA}$ , $25^\circ\text{C}$		24	100	mV	
		$I_o=1\text{mA}\sim 40\text{mA}$ , $25^\circ\text{C}$		15	50	mV	
Line regulation	$\Delta V_o$	-14V $\leq V_i \leq$ -27V, $25^\circ\text{C}$		50	250	mV	
		-16V $\leq V_i \leq$ -27V, $25^\circ\text{C}$		40	200	mV	
Quiescent Current	$I_q$	$25^\circ\text{C}$			6.5	mA	
Quiescent Current Change	$\Delta I_q$	-16V $\leq V_i \leq$ -27V, 0-125 $^\circ\text{C}$			1.5	mA	
	$\Delta I_q$	1mA $\leq I_o \leq$ 40mA, 0-125 $^\circ\text{C}$			0.1	mA	
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz, $25^\circ\text{C}$		80		$\mu\text{V}$	
Ripple Rejection	RR	-15V $\leq V_i \leq$ -25V, $f=120\text{Hz}$ , 0-125 $^\circ\text{C}$	37	42		dB	
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V	

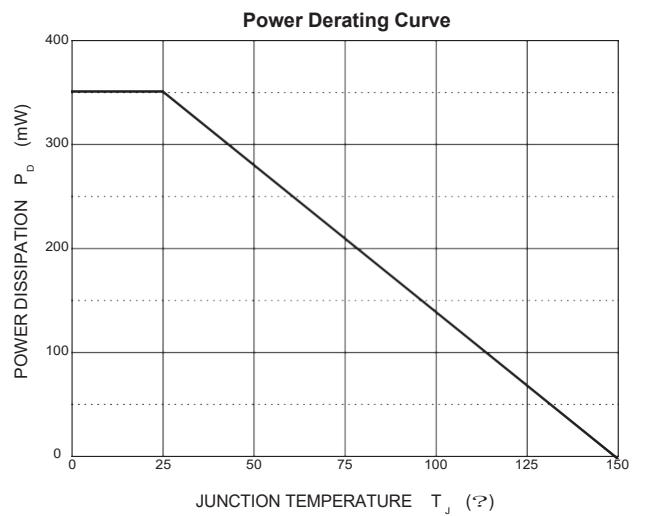
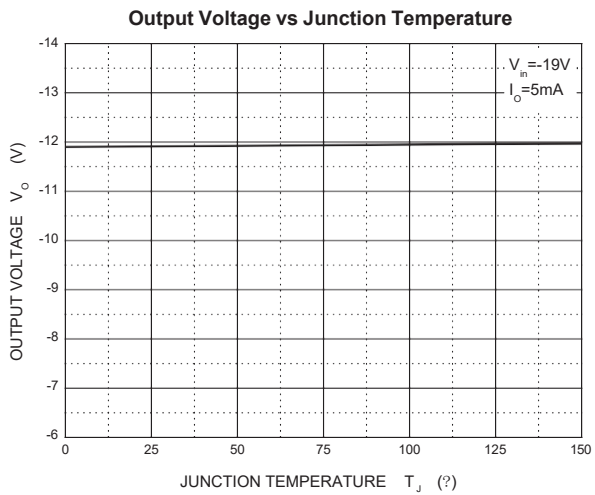
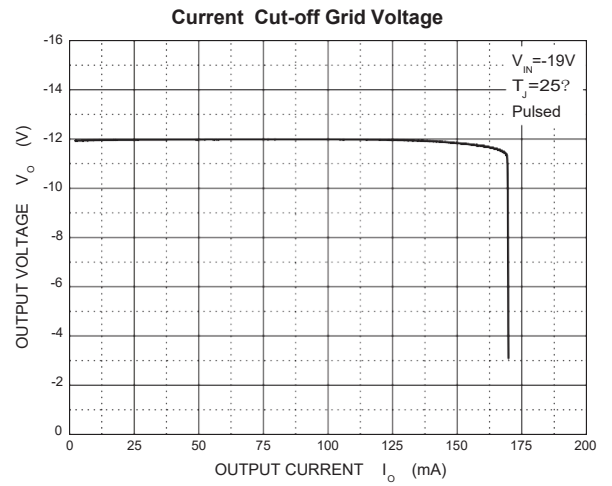
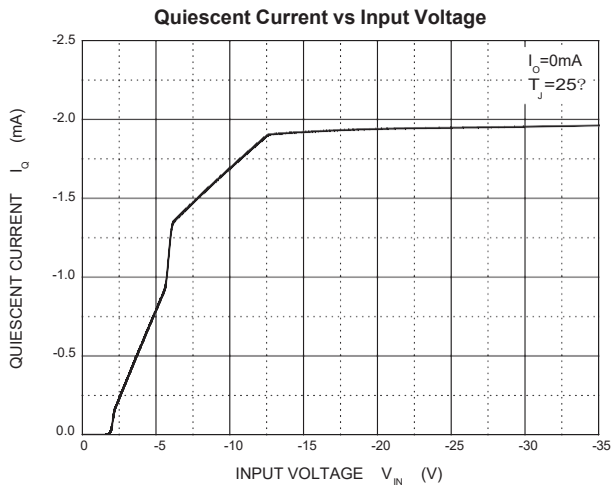
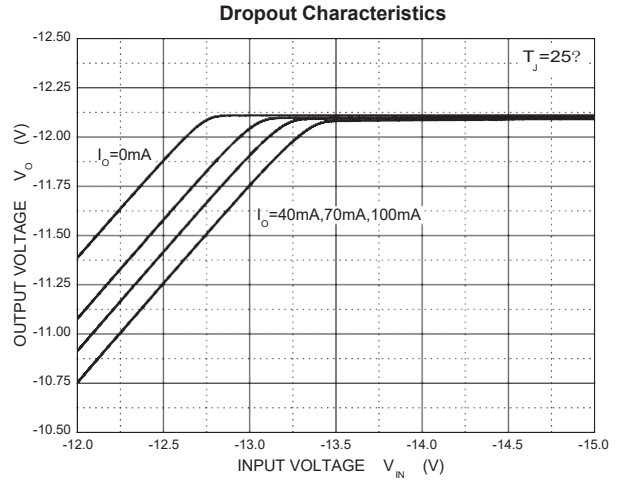
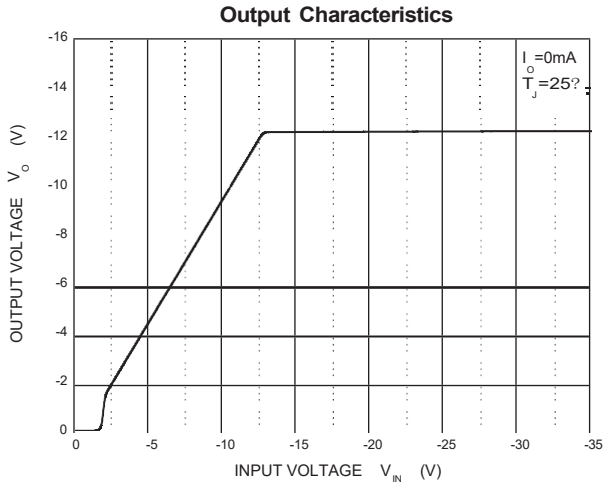
\* Pulse test.

#### TYPICAL APPLICATION



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

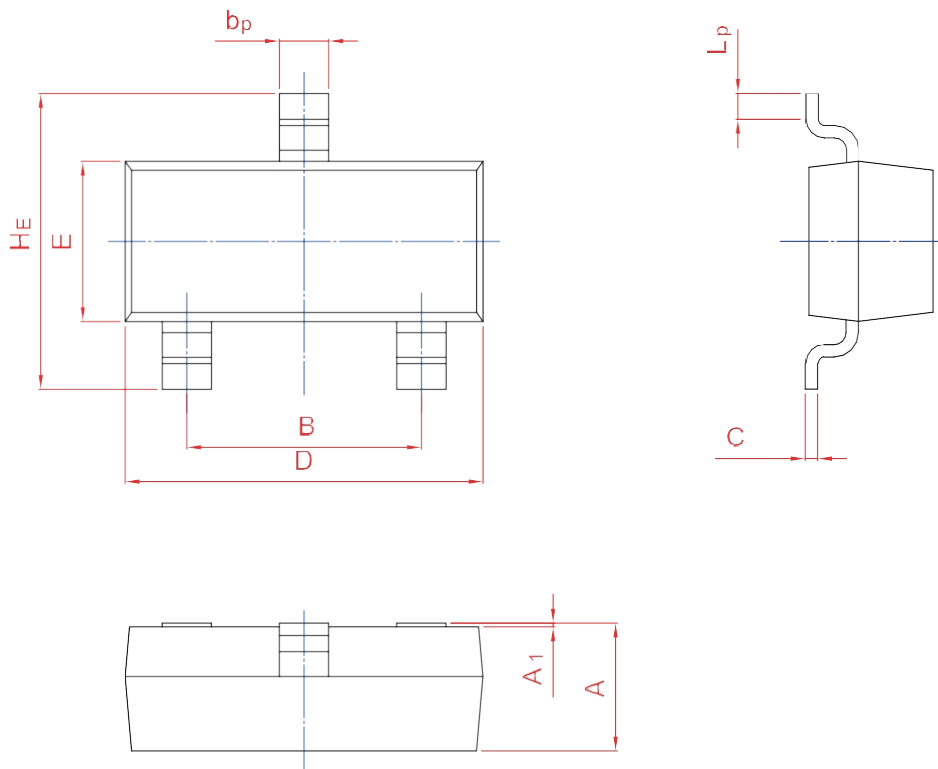
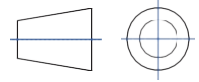
## Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20