

## Three-terminal positive voltage regulator

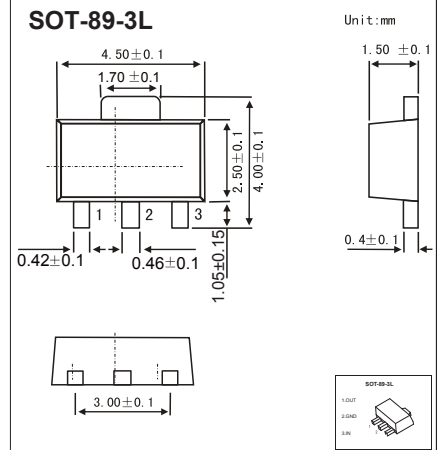
### FEATURES

- Maximum output current IOM: 0.1A
- Output voltage VO: -6V
- Continuous total dissipation

$$PD: 0.6 W ( T_a = 25 ^\circ C )$$

### MECHANICAL DATA

- Case: SOT-89 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



### ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	208.3	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ C$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ C$

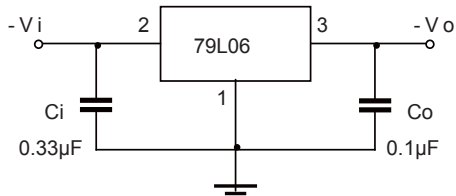
### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

( $V_i = -11V, I_o = 40mA, C_i = 0.33 \mu F, C_o = 0.1 \mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25^\circ C$	-5.76	-6.0	-6.24	V
		$-8V \leq V_i \leq -20V, I_o = 1mA \sim 40mA$	-5.7	-6.0	-6.3	V
		$0 \sim 125^\circ C$	-5.7	-6.0	-6.3	V
Load Regulation	$\Delta V_o$	$I_o = 1mA \sim 100mA$	$25^\circ C$	21	80	mV
		$I_o = 1mA \sim 40mA$	$25^\circ C$	11	40	mV
Line Regulation	$\Delta V_o$	$-8V \leq V_i \leq -20V$	$25^\circ C$	20	175	mV
		$-9V \leq V_i \leq -20V$	$25^\circ C$	15	125	mV
Quiescent Current	$I_q$	$25^\circ C$		3.9	6.0	mA
Quiescent Current Change	$\Delta I_q$	$-9V \leq V_i \leq -20V$	$0 \sim 125^\circ C$		1.5	mA
	$\Delta I_q$	$1mA \leq V_i \leq 40mA$	$0 \sim 125^\circ C$		0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	$25^\circ C$	44		$\mu V/V_o$
Ripple Rejection	RR	$-9V \leq V_i \leq -19V, f = 120HZ$	$0 \sim 125^\circ C$	40	48	dB
Dropout Voltage	$V_d$	$25^\circ C$		1.7		V

\* Pulse test.

### TYPICAL APPLICATION

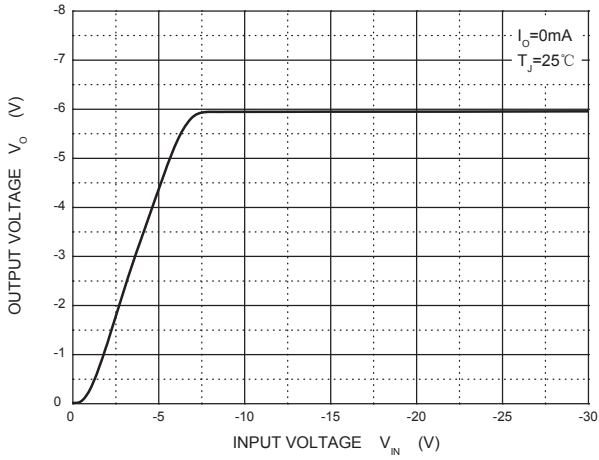


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the regulators.

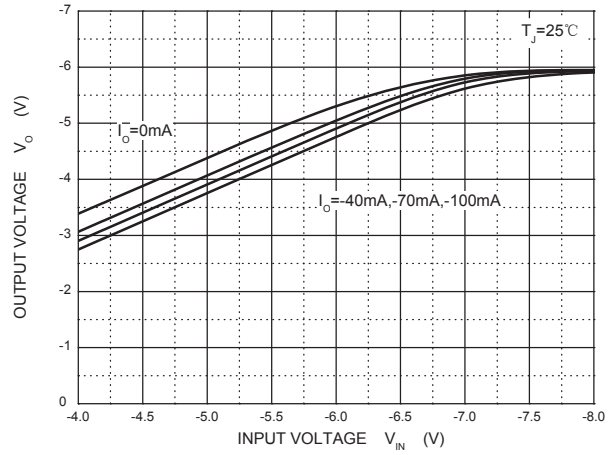
# RATINGS AND CHARACTERISTIC CURVES

## TYPICAL APPLICATION

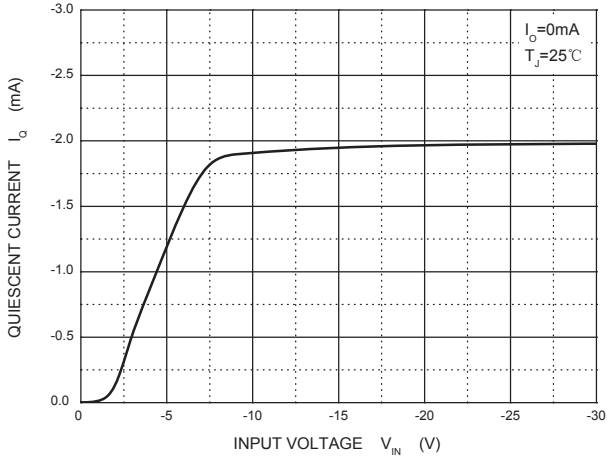
**Output Characteristics**



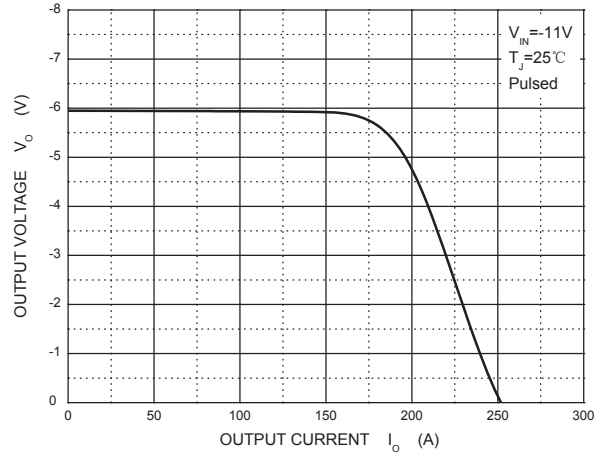
**Dropout Characteristics**



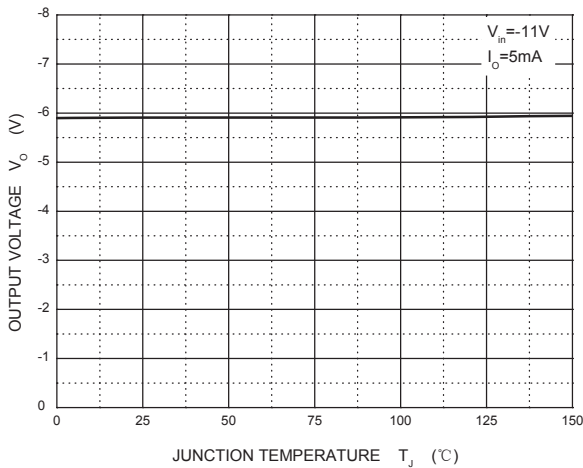
**Quiescent Current vs Input Voltage**



**Current Cut-off Grid Voltage**



**Output Voltage vs Junction Temperature**



**Power Derating Curve**

