

## Three-terminal positive voltage regulator

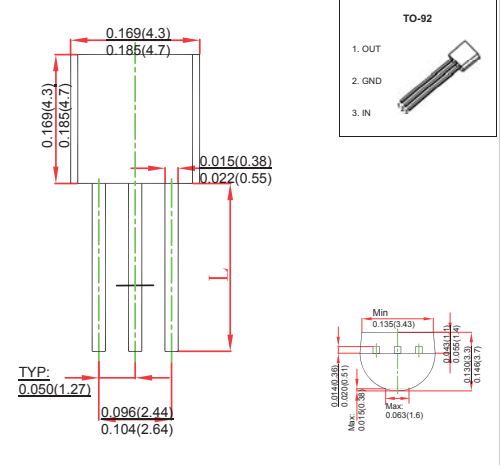
### FEATURES

- Maximum output current IOM: 0.1A
- Output voltage VO: -6V
- Continuous total dissipation  
 $P_D: 0.625\text{ W} (T_a = 25^\circ\text{C})$

### MECHANICAL DATA

- Case: TO-92 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

### TO-92



### 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	$R_{\theta JA}$	200	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

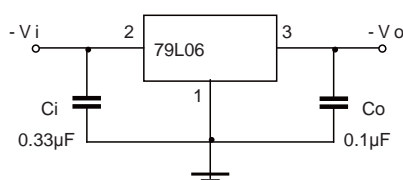
### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	$V_o$	$25^\circ\text{C}$	-5.76	-6.0	-6.24	V	
		0-125 $^\circ\text{C}$	$-8\text{V} \leq V_i \leq -20\text{V}, I_o = 1\text{mA} \sim 40\text{mA}$	-5.7	-6.0	-6.3	V
			$I_o = 1\text{mA} \sim 70\text{mA}$	-5.7	-6.0	-6.3	V
Load Regulation	$\Delta V_o$	$I_o = 1\text{mA} \sim 100\text{mA}$ $25^\circ\text{C}$		21	80	mV	
		$I_o = 1\text{mA} \sim 40\text{mA}$ $25^\circ\text{C}$		11	40	mV	
Line Regulation	$\Delta V_o$	$-8\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		20	175	mV	
		$-9\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		15	125	mV	
Quiescent Current	$I_q$	$25^\circ\text{C}$		3.9	6.0	mA	
Quiescent Current Change	$\Delta I_q$	$-9\text{V} \leq V_i \leq -20\text{V}$ 0-125 $^\circ\text{C}$			1.5	mA	
	$\Delta I_q$	$1\text{mA} \leq V_i \leq 40\text{mA}$ 0-125 $^\circ\text{C}$			0.1	mA	
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz $25^\circ\text{C}$		44		$\mu\text{V}/V_o$	
Ripple Rejection	RR	$-9\text{V} \leq V_i \leq -19\text{V}, f = 120\text{HZ}$ 0-125 $^\circ\text{C}$	40	48		dB	
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V	

\* Pulse test.

### TYPICAL APPLICATION

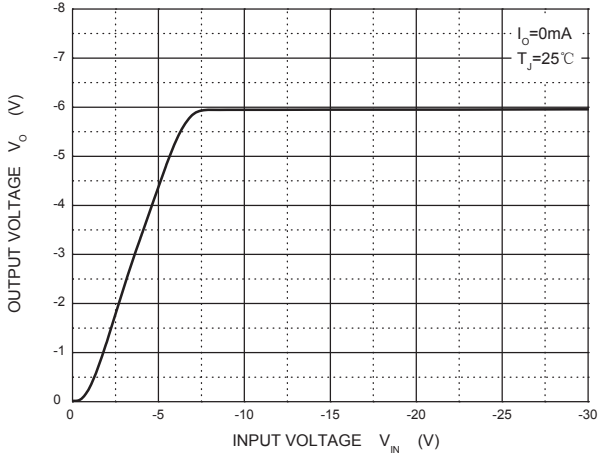


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the regulators.

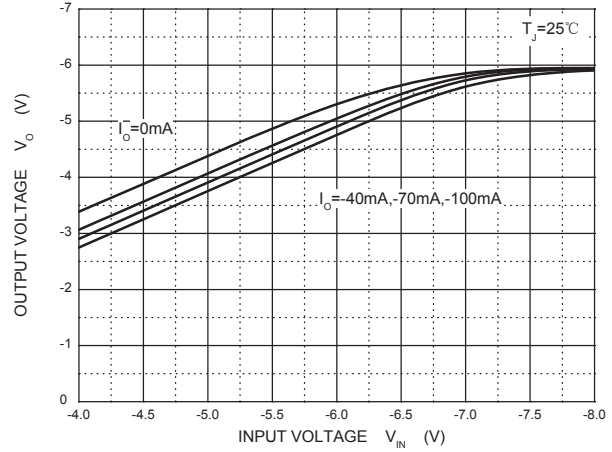
# RATINGS AND CHARACTERISTIC CURVES

## TYPICAL APPLICATION

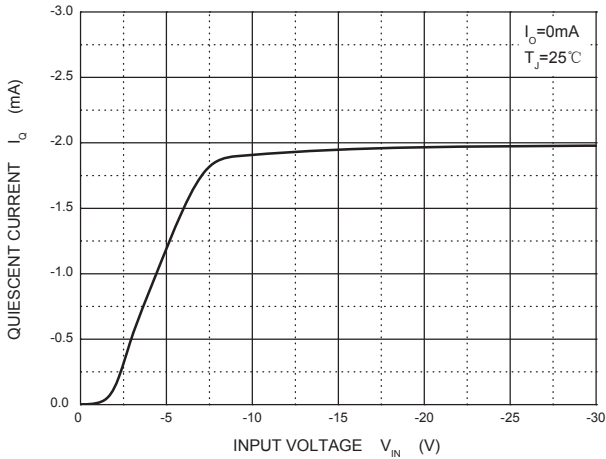
**Output Characteristics**



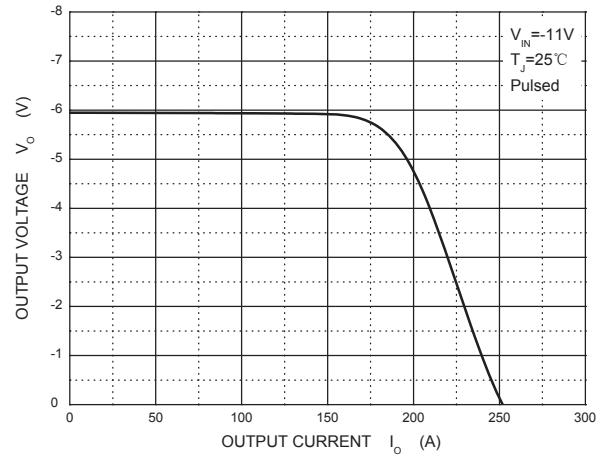
**Dropout Characteristics**



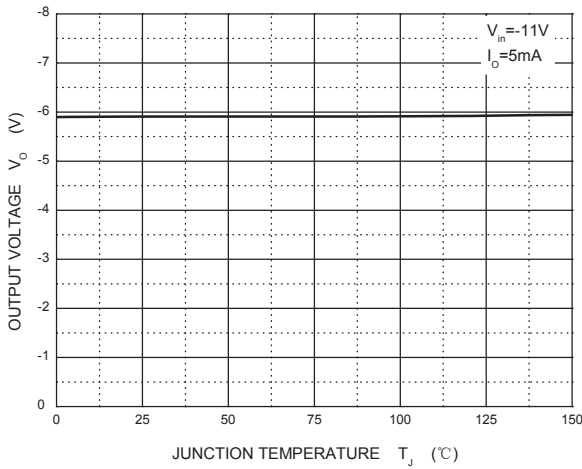
**Quiescent Current vs Input Voltage**



**Current Cut-off Grid Voltage**



**Output Voltage vs Junction Temperature**



**Power Derating Curve**

