

## Three-terminal positive voltage regulator

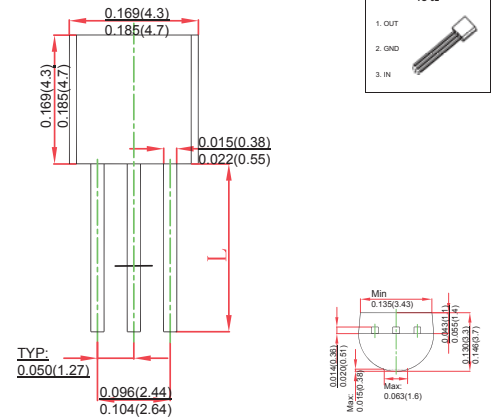
### FEATURES

- Maximum output current IOM: 0.1A
- Output voltage VO: -9V
- Continuous total dissipation  
 $P_D: 0.625\text{ W ( } T_a = 25\text{ }^\circ\text{C )}$

### 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)

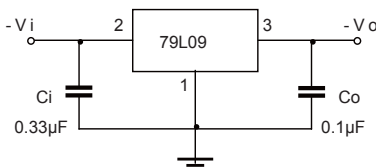
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (VI=-16V, Io=40mA, Ci=0.33 μF, Co=0.1μF, unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	$V_o$	$25^\circ\text{C}$	-8.64	-9.0	-9.36	V	
		0-125 $^\circ\text{C}$	-12V $\leq V_i \leq$ -24V, Io=1mA-40mA	-8.55	-9.0	-9.45	V
			Io=1mA-70mA	-8.55	-9.0	-9.45	V
Load Regulation	$\Delta V_o$	Io=1mA-100mA, 25 $^\circ\text{C}$		19	90	mV	
		Io=1mA-40mA, 25 $^\circ\text{C}$		11	40	mV	
Line Regulation	$\Delta V_o$	-12V $\leq V_i \leq$ -24V, 25 $^\circ\text{C}$		45	175	mV	
		-13V $\leq V_i \leq$ -24V, 25 $^\circ\text{C}$		40	125	mV	
Quiescent Current	$I_q$	25 $^\circ\text{C}$		4.1	6.0	mA	
Quiescent Current Change	$\Delta I_q$	-13V $\leq V_i \leq$ -24V, 0-125 $^\circ\text{C}$			1.5	mA	
	$\Delta I_q$	1mA $\leq V_i \leq$ 40mA, 0-125 $^\circ\text{C}$			0.1	mA	
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz, 25 $^\circ\text{C}$		58		$\mu\text{V}/V_o$	
Ripple Rejection	RR	-15V $\leq V_i \leq$ -24V, f=120Hz, 0-125 $^\circ\text{C}$		45		dB	
Dropout Voltage	$V_d$	25 $^\circ\text{C}$		1.7		V	

\* Pulse test.

### TYPICAL APPLICATION

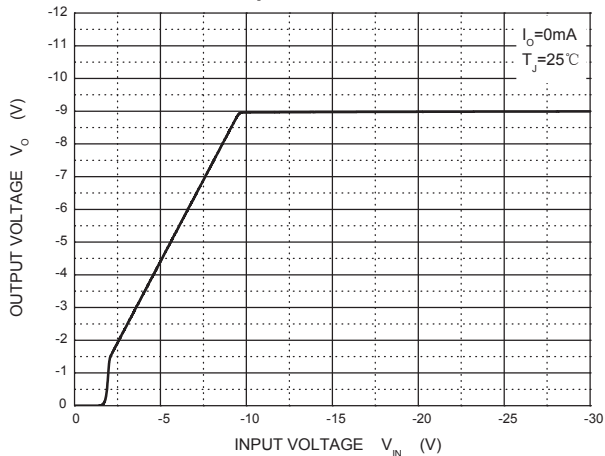


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators

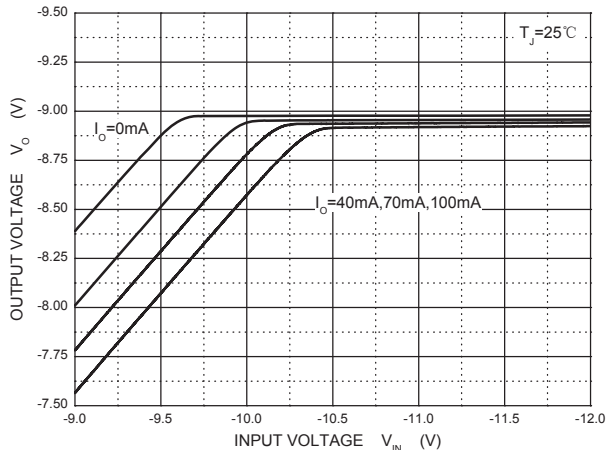
# RATINGS AND CHARACTERISTIC CURVES

## TYPICAL APPLICATION

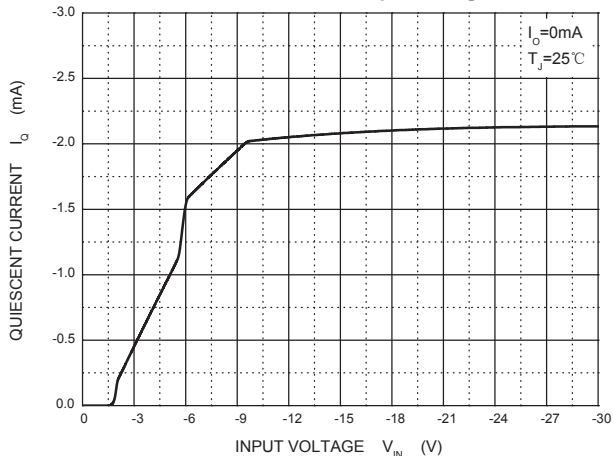
Output Characteristics



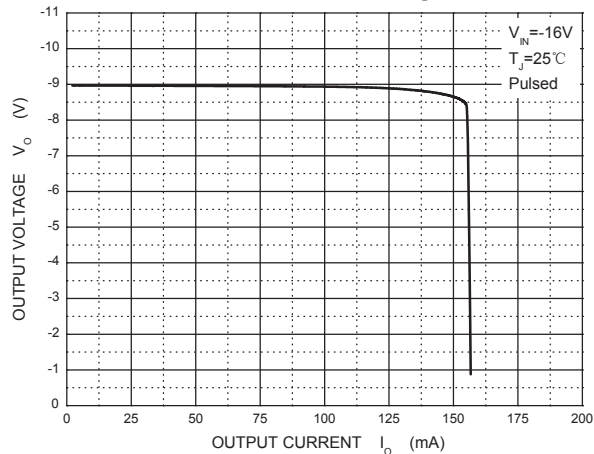
Dropout Characteristics



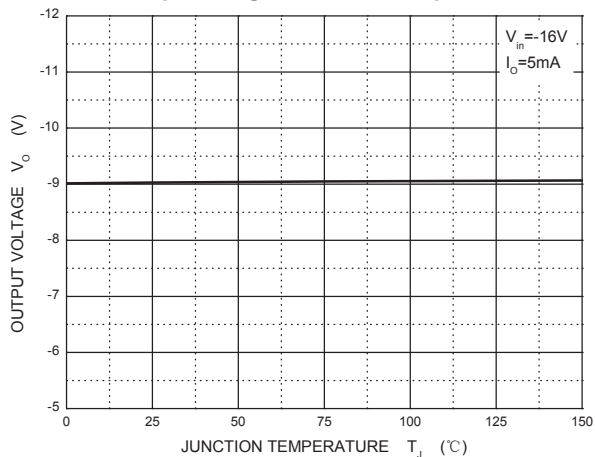
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

