

TO-92 Three-terminal positive voltage regulator

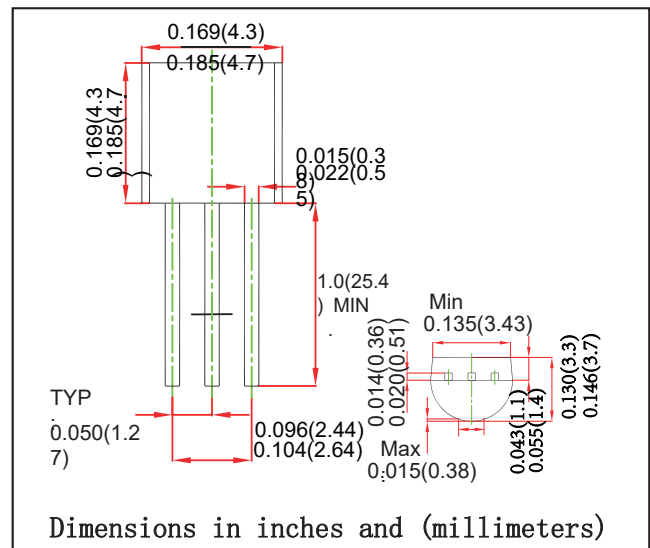
FEATURES

- Maximum output current I_{OM} : 0.1A
- Output voltage V_O : -8V
- 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



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

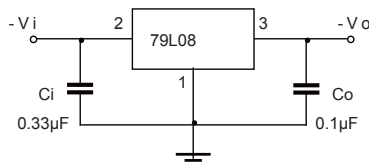
Parameter	Symbol	Value	Unit
Input Voltage	V_i	-30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	0~+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i = -14\text{V}$, $I_o = 40\text{mA}$, $C_i = 0.33\mu\text{F}$, $C_o = 0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25 $^\circ\text{C}$	-7.68	-8.0	-8.32	V
		-10.5VKV _I K-23V, $I_o = 1\text{mA} \sim 40\text{mA}$	-7.6	-8.0	-8.4	V
		$I_o = 1\text{mA} \sim 70\text{mA}$	-7.6	-8.0	-8.4	V
Load Regulation	$\% V_o$	$I_o = 1\text{mA} \sim 100\text{mA}$		30	100	mV
		$I_o = 1\text{mA} \sim 40\text{mA}$		15	50	mV
Line Regulation	$\% V_o$	-10.5VKV _I K-23V		42	200	mV
		-11VKV _I K-23V		36	150	mV
Quiescent Current	I_q	25 $^\circ\text{C}$		4	6	mA
Quiescent Current Change	$\% I_q$	-11VKV _I K-23V			1.5	mA
	$\% I_q$	1mA I_o K 40mA			0.1	mA
Output Noise Voltage	V_N	10Hz K 100KHz		54		$\mu\text{V}/V_o$
Ripple Rejection	RR	-11VKV _I K-21V, $f = 120\text{Hz}$	37	46		dB
Dropout Voltage	V_d	25 $^\circ\text{C}$		1.7		V

* Pulse test.

TYPICAL APPLICATION

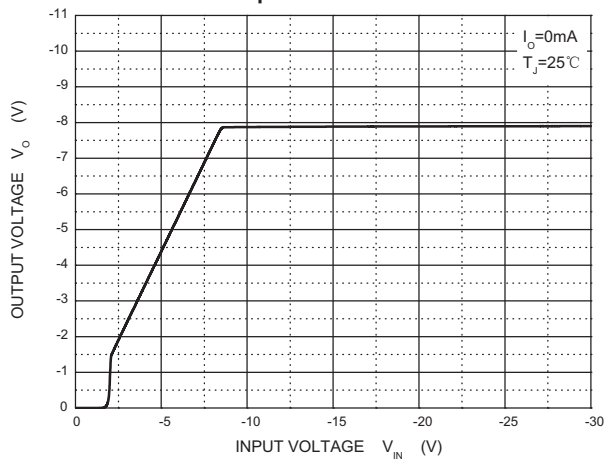


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

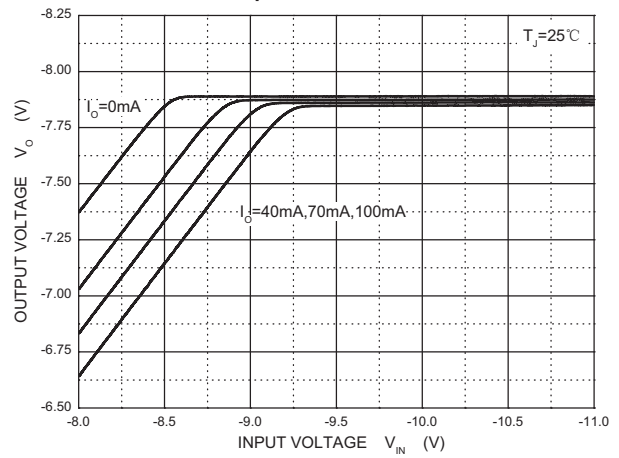
RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

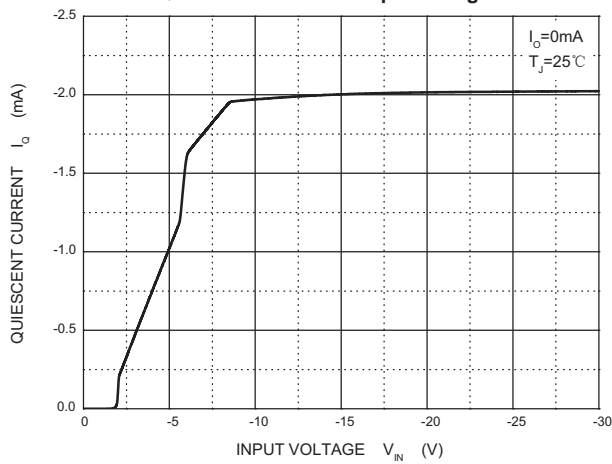
Output Characteristics



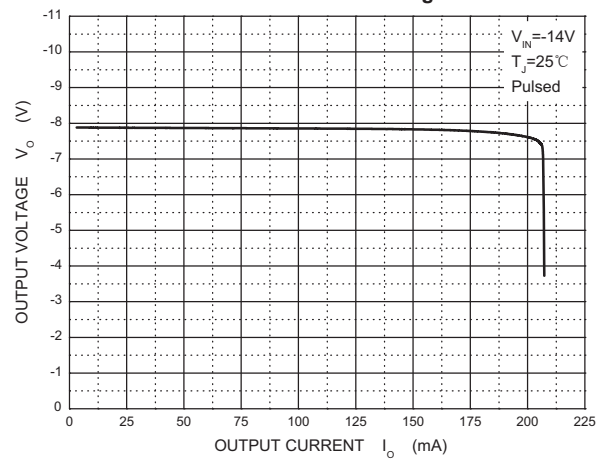
Dropout Characteristics



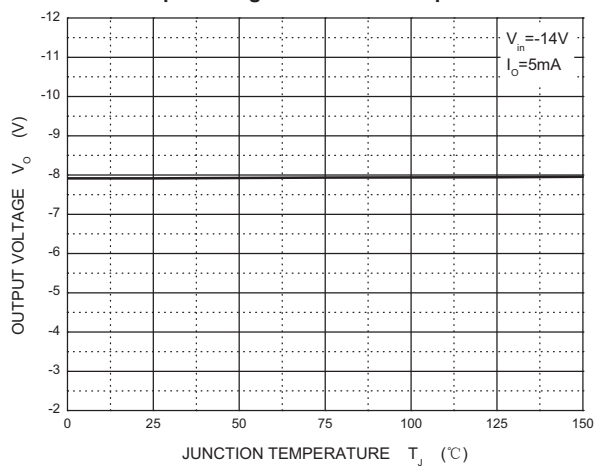
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

