

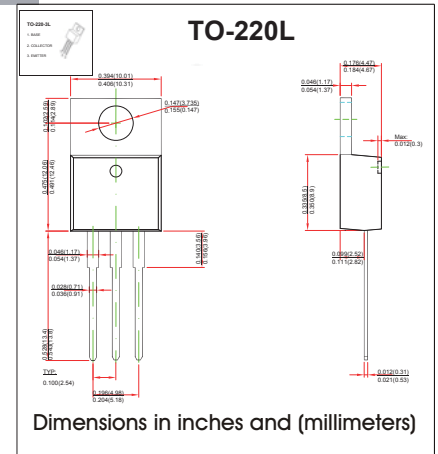
Three-terminal positive voltage regulator

FEATURES

- Maximum Output current IOM: 1.5 A
- Output voltage V_O : 8 V
- Continuous total dissipation PD: 1.5 W
15W ($T_a = 25^\circ\text{C}$)

MECHANICAL DATA

- Case: TO-220 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

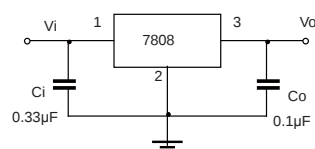
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83.3	$^\circ\text{C/W}$
Thermal Resistance from Junction to Case	$R_{\theta JC}$	8.3	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	$0 \sim +150$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i=14\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_O	25°C	7.7	8	8.3	V
		$10.5\text{V} \leq V_i \leq 23\text{V}$, $I_o=5\text{mA}-1\text{A}$, $P \leq 15\text{W}$	7.6	8	8.4	V
Load Regulation	ΔV_O	$I_o=5\text{mA}-1.5\text{A}$		12	160	mV
		$I_o=250\text{mA}-750\text{mA}$		4	80	mV
Line Regulation	ΔV_O	$10.5\text{V} \leq V_i \leq 25\text{V}$		6	160	mV
		$11\text{V} \leq V_i \leq 17\text{V}$		2	80	mV
Quiescent Current	I_q	25°C		4.3	8	mA
Quiescent Current Change	ΔI_q	$10.5\text{V} \leq V_i \leq 25\text{V}$			1	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$			0.5	mA
Output Voltage Drift	$\Delta V_O / \Delta T$	$I_o=5\text{mA}$		-0.8		mV/ $^\circ\text{C}$
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		52		μV
Ripple Rejection	RR	$11.5\text{V} \leq V_i \leq 21.5\text{V}$, $f=120\text{Hz}$		72		dB
Dropout Voltage	V_d	$I_o=1\text{A}$		2		V
Output Resistance	R_O	$f=1\text{KHz}$		10		m Ω
Short Circuit Current	I_{sc}	25°C		450		mA
Peak Current	I_{pk}	25°C		2.2		A

TYPICAL APPLICATION



RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

