

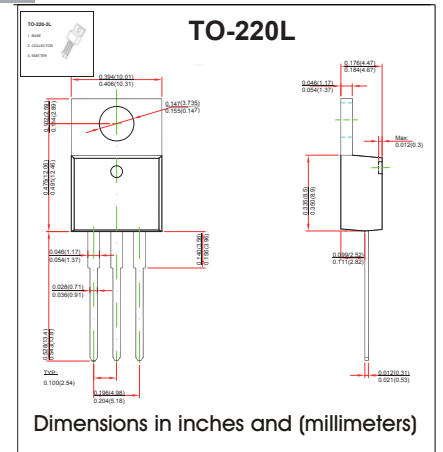
Three-terminal positive voltage regulator

FEATURES

- Maximum Output current IOM: 1.5 A
- Output voltage V_O : 12 V
- Continuous total dissipation
PD: 1.5 W ($T_A = 25^\circ\text{C}$)

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

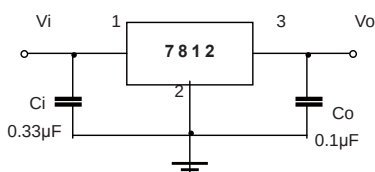
@ 25°C Ambient Temperature (unless otherwise noted)

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
($V_i=19\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\text{ F}$, $C_o=0.1\text{ F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_O	25°C	11.5	12.0	12.5	V
		$I_o = 5.0\text{mA} - 1.0\text{A}$, $P \leq 15\text{W}$ $14.5\text{V} \leq V_i \leq 27\text{V}$	11.4	12	12.6	V
Load Regulation	ΔV_O	$14.5\text{V} \leq V_i \leq 30\text{V}$		10	240	mV
		$16\text{V} \leq V_i \leq 22\text{V}$		3	120	mV
Line regulation	ΔV_O	$I_o = 5\text{mA} - 1.5\text{A}$		12	240	mV
		$I_o = 250\text{mA} - 750\text{mA}$		4	120	mV
Quiescent Current	I_q	25°C		4.3	8	mA
Quiescent Current Change	ΔI_q	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$			0.5	mA
		$14.5\text{V} \leq V_i \leq 30\text{V}$			1.0	mA
Output voltage drift	$\Delta V_O / \Delta T$	$I_o = 5\text{mA}$		-1		mV/ $^\circ\text{C}$
Output Noise Voltage	V_N	$f = 10\text{Hz to } 100\text{KHz}$		75		μV
Ripple Rejection	RR	$f = 120\text{Hz}$, $15\text{V} \leq V_i \leq 25\text{V}$	55	71		dB
Dropout Voltage	V_d	$I_o = 1.0\text{A}$		2		V
Output resistance	R_O	$f = 1\text{KHz}$		18		m Ω
Short Circuit Current	I_{sc}	25°C		350		mA
Peak Current	I_{pk}	25°C		2.2		A

TYPICAL APPLICATION



RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

