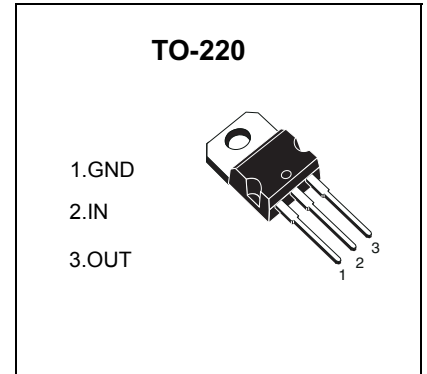


TO-220 Plastic-Encapsulate Voltage Regulators

L7915 C V Three-terminal negative voltage regulator



FEATURES

Maximum Output current I_{OM} : 1.5 A
Output voltage V_o : -15 V
Continuous total dissipation
 P_D : 1.5 W ($T_a = 25^\circ\text{C}$)
15 W ($T_c = 25^\circ\text{C}$)

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance Junction-Air	$R_{\theta JA}$	83.3	$^\circ\text{C/W}$
Thermal Resistance Junction-Case	$R_{\theta JC}$	8.33	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	0~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i = -23\text{V}$, $I_o = 500\text{mA}$, $C_i = 2.2\mu\text{F}$, $C_o = 1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	-14.4	-15	-15.6	V
		$-17.5\text{V} \leq V_i \leq -30\text{V}$, $I_o = 5\text{mA} - 1\text{A}$, $P \leq 15\text{W}$	0-125 $^\circ\text{C}$	-14.25	-15	-15.75
Load regulation	ΔV_o	$I_o = 5\text{mA} - 1.5\text{A}$	25°C	15	200	mV
		$I_o = 250\text{mA} - 750\text{mA}$	25°C	5	75	mV
Line regulation	ΔV_o	$-17.5\text{V} \leq V_i \leq -30\text{V}$	25°C	5	100	mV
		$-20\text{V} \leq V_i \leq -26\text{V}$	25°C	3	50	mV
Quiescent current	I_q	25°C		2	3	mA
Quiescent current change	ΔI_q	$-17.5\text{V} \leq V_i \leq -30\text{V}$	0-125 $^\circ\text{C}$		0.5	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output noise voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C	375		μV
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-1		mV/ $^\circ\text{C}$
Ripple rejection	RR	$-18.5\text{V} \leq V_i \leq -28.5\text{V}$, $f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout voltage	V_d	$I_o = 1\text{A}$	25°C	1.1		V
Peak current	I_{pk}	25°C		2.1		A

TYPICAL APPLICATION

