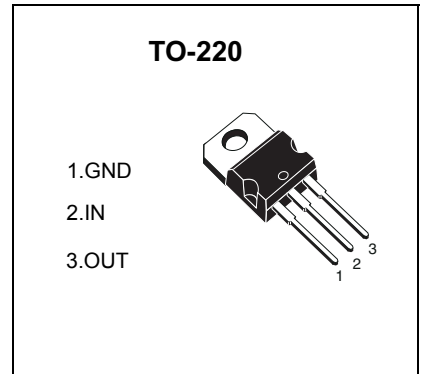


## TO-220 Plastic-Encapsulate Voltage Regulators

**L7912 C V** Three-terminal negative voltage regulator



### FEATURES

Maximum output current  $I_{OM}$ : 1.5 A  
Output voltage  $V_o$ : -12 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 from Junction to Ambient	$R_{\theta JA}$	83.3	$^\circ\text{C/W}$
Thermal Resistance from Junction to 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 ( $V_i = -19\text{V}, I_o = 500\text{mA}, C_i = 2.2\mu\text{F}, C_o = 1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25^\circ\text{C}$	-11.5	-12	-12.5	V
		$-14.5\text{V} \leq V_i \leq -27\text{V}, I_o = 5\text{mA} - 1\text{A}$ $P \leq 15\text{W}$	0-125 $^\circ\text{C}$	-11.4	-12	-12.6
Load Regulation	$\Delta V_o$	$I_o = 5\text{mA} - 1.5\text{A}$	$25^\circ\text{C}$	15	200	mV
		$I_o = 250\text{mA} - 750\text{mA}$	$25^\circ\text{C}$	5	75	mV
Line Regulation	$\Delta V_o$	$-14.5\text{V} \leq V_i \leq -30\text{V}$	$25^\circ\text{C}$	5	80	mV
		$-16\text{V} \leq V_i \leq -22\text{V}$	$25^\circ\text{C}$	3	30	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$		2	3	mA
Quiescent Current Change	$\Delta I_q$	$-14.5\text{V} \leq V_i \leq -30\text{V}$	0-125 $^\circ\text{C}$		0.5	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz	$25^\circ\text{C}$	300		$\mu\text{V}$
Output Voltage Drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-0.8		mV/ $^\circ\text{C}$
Ripple Rejection	RR	$-15\text{V} \leq V_i \leq -25\text{V}, f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout Voltage	$V_d$	$I_o = 1\text{A}$	$25^\circ\text{C}$	1.1		V
Peak Current	$I_{pk}$	$25^\circ\text{C}$		2.1		A

### TYPICAL APPLICATION

