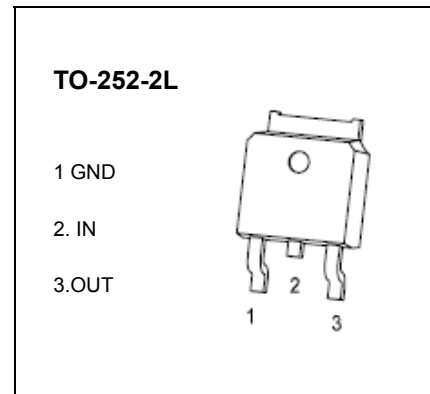


# TO-252-2L Plastic-Encapsulate Voltage Regulator

CJ7915 Three-terminal negative voltage regulator

**FEATURE**

- Maximum Output current  $I_{OM}$ : 1.5 A
- Output voltage  $V_o$ : -15 V
- Continuous total dissipation  
 $P_D$ : 1.25 W ( $T_a=25^\circ\text{C}$ )  
 12.5 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	$R_{\theta JA}$	100	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction-Case	$R_{\theta JC}$	10	$^\circ\text{C}/\text{W}$
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	$V_o$	$25^\circ\text{C}$	-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	$\Delta V_o$	$I_o=5\text{mA}-1.5\text{A}$	$25^\circ\text{C}$	15	200	mV
		$I_o=250\text{mA}-750\text{mA}$	$25^\circ\text{C}$	5	75	mV
Line regulation	$\Delta V_o$	$-17.5\text{V} \leq V_i \leq -30\text{V}$	$25^\circ\text{C}$	5	100	mV
		$-20\text{V} \leq V_i \leq -26\text{V}$	$25^\circ\text{C}$	3	50	mV
Quiescent current	$I_q$	$25^\circ\text{C}$		2	3	mA
Quiescent current change	$\Delta I_q$	$-17.5\text{V} \leq V_i \leq -30\text{V}$	0-125 $^\circ\text{C}$		0.5	mA
	$\Delta I_q$	$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output noise voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$	$25^\circ\text{C}$	375		$\mu\text{V}$
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$	0-125 $^\circ\text{C}$	-1		$\text{mV}/^\circ\text{C}$
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	$V_d$	$I_o=1\text{A}$	$25^\circ\text{C}$		1.1	V
Peak current	$I_{pk}$	$25^\circ\text{C}$		2.1		A
Short circuit current	$I_{sc}$	$V_i=-35\text{V}$	$25^\circ\text{C}$		300	mA

**TYPICAL APPLICATION**

