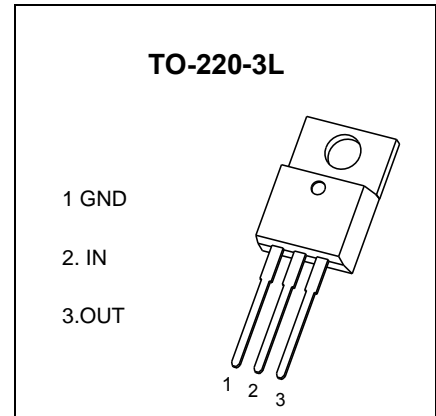


# TO-220-3L Plastic-Encapsulate Voltage Regulator

**CJ7915** Three-terminal negative voltage regulator

**FEATURES**

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



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

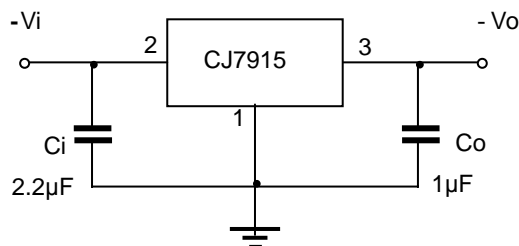
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-35	V
Thermal Resistance from Junction to Air	$R_{\theta JA}$	83.3	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

**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 )**

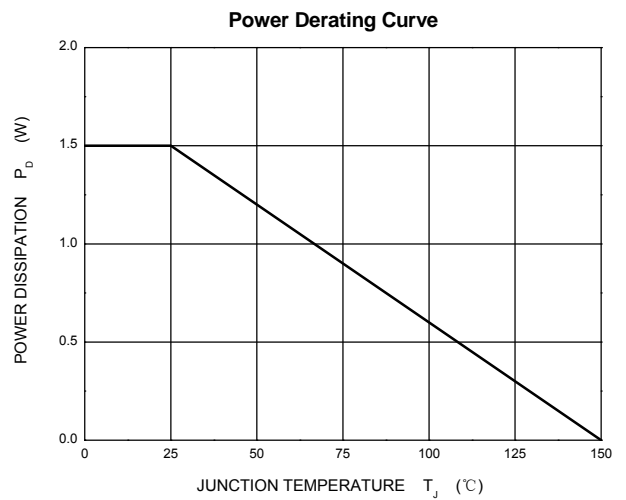
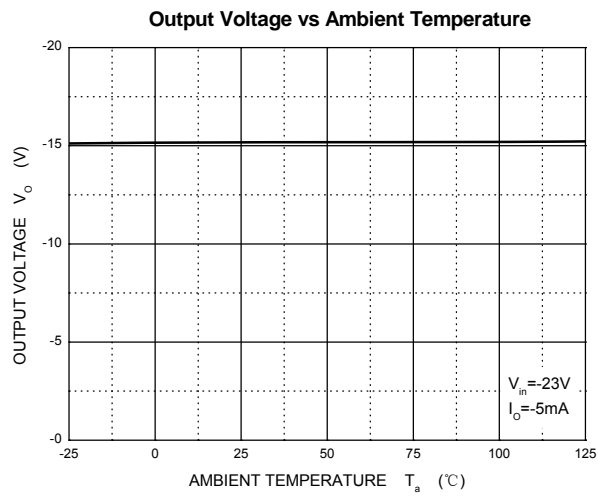
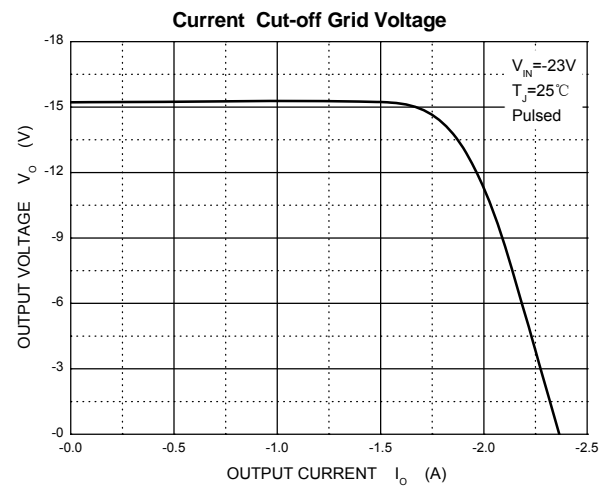
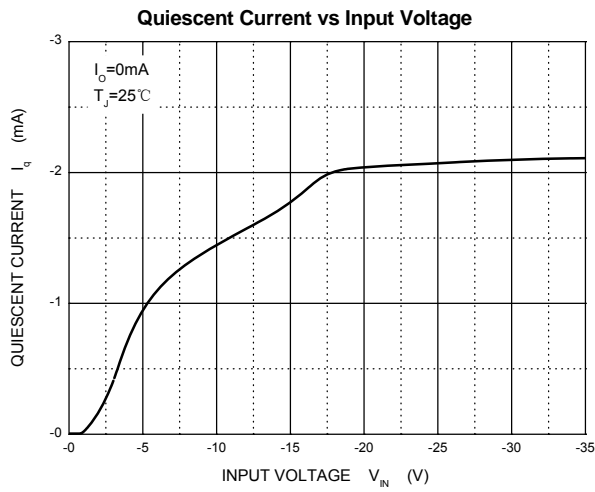
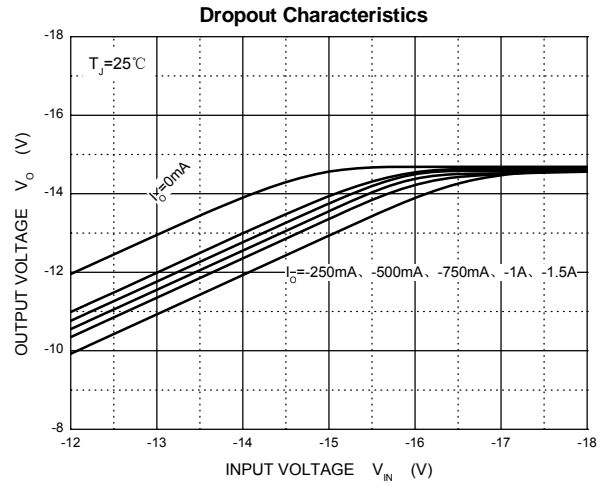
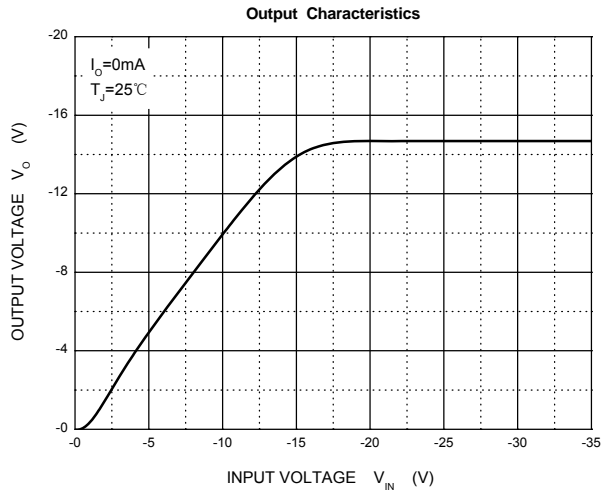
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	$V_o$	$25^\circ\text{C}$	-14.4	-15	-15.6	V
		$-17.5\text{V} \leq V_i \leq -30\text{V}$ , $I_o = 5\text{mA} - 1\text{A}$	0-125 $^\circ\text{C}$	-14.25	-15	-15.75
Load regulation	$\Delta V_o$	$I_o = 5\text{mA} - 1.5\text{A}$	$25^\circ\text{C}$	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		$\mu\text{V}/V_o$
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

\* Pulse test.

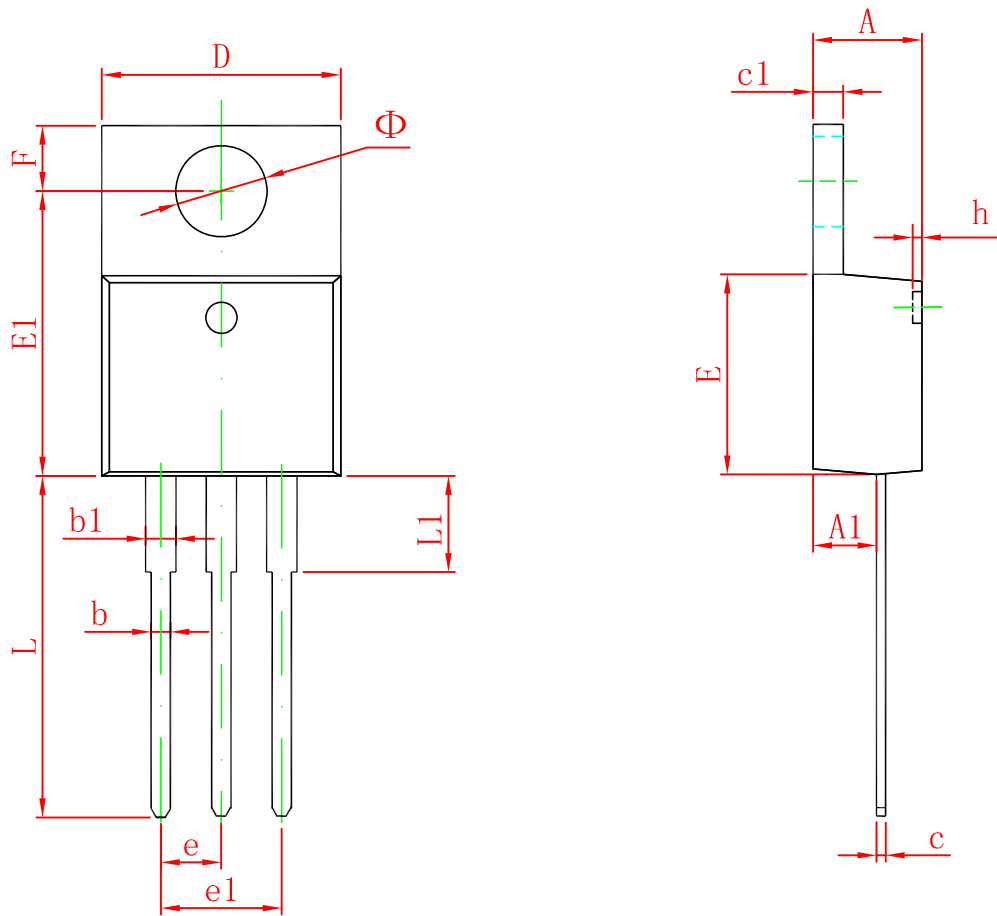
**TYPICAL APPLICATION**



# Typical Characteristics



# TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
$\Phi$	3.735	3.935	0.147	0.155