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**79L15** Three-terminal negative voltage regulator

**TO-92 Encapsulate Three Terminal Voltage Regulator**

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			

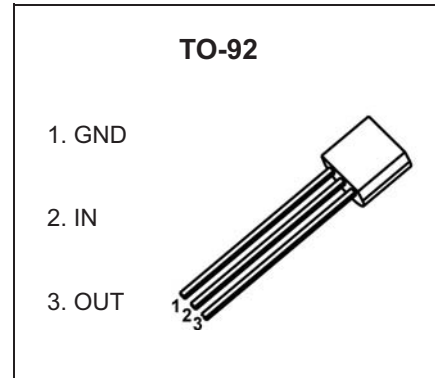


TO-92 Encapsulate Three-terminal Voltage Regulator

**79L15** Three-terminal negative voltage regulator

**FEATURES**

- Maximum output current  
I<sub>OM</sub>: 0.1A
- Output voltage  
V<sub>O</sub>: -1.5 V
- Continuous total dissipation  
P<sub>D</sub>:0.625 W (T<sub>a</sub>= 25 °C)



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

Parameter	Symbol	Value	Unit
Input Voltage	V <sub>i</sub>	-35	V
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	200	°C/W
Operating Junction Temperature Range	T <sub>OPR</sub>	0~+150	°C
Storage Temperature Range	T <sub>STG</sub>	-65~+150	°C

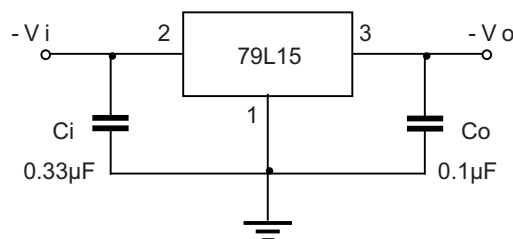
**ELECTRICAL CHARACTERISTICS**

T<sub>a</sub>=25 °C unless otherwise specified (V<sub>i</sub>=-23V, I<sub>o</sub>=40mA, C<sub>i</sub>=0.33μF, C<sub>o</sub>=0.1μF, unless otherwise specified ).

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V <sub>o</sub>	25°C	-14.4	-15	-15.6	V	
		-17.5V≤V <sub>i</sub> ≤-30V, I <sub>o</sub> =1mA~40mA	0-125°C	-14.25	-15	-15.75	V
		I <sub>o</sub> =1mA~70mA		-14.25	-15	-15.75	V
Load Regulation	ΔV <sub>o</sub>	I <sub>o</sub> =1mA~100mA, V <sub>i</sub> =-23V	25°C	25	150	mV	
		I <sub>o</sub> =1mA~40mA, V <sub>i</sub> =-23V	25°C	15	75	mV	
Line regulation	ΔV <sub>o</sub>	-17.5V≤V <sub>i</sub> ≤-30V, I <sub>o</sub> =40mA	25°C	65	300	mV	
		-20V≤V <sub>i</sub> ≤-30V, I <sub>o</sub> =40mA	25°C	50	250	mV	
Quiescent Current	I <sub>q</sub>	25°C			6.5	mA	
Quiescent Current Change	ΔI <sub>q</sub>	-20V≤V <sub>i</sub> ≤-30V, I <sub>o</sub> =40mA	0-125°C		1.5	mA	
	ΔI <sub>q</sub>	1mA≤I <sub>o</sub> ≤40mA	0-125°C		0.1	mA	
Output Noise Voltage	V <sub>N</sub>	10Hz≤f≤100KHz	25°C	90		μV/V <sub>o</sub>	
Ripple Rejection	RR	-18.5V≤V <sub>i</sub> ≤-28.5V, f=120Hz	0-125°C	34	39	dB	
Dropout Voltage	V <sub>d</sub>	25°C		1.7		V	

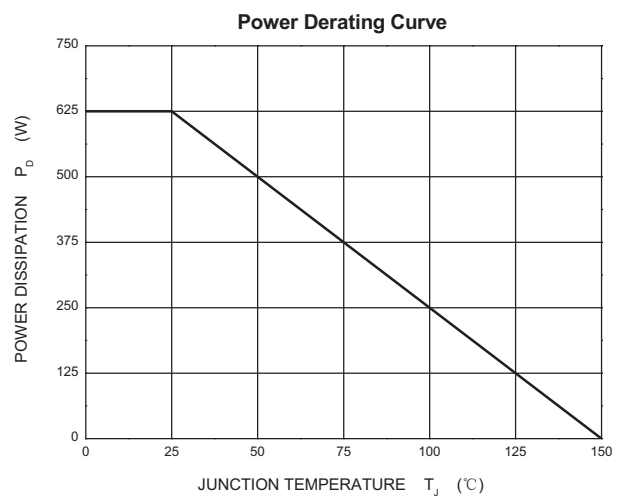
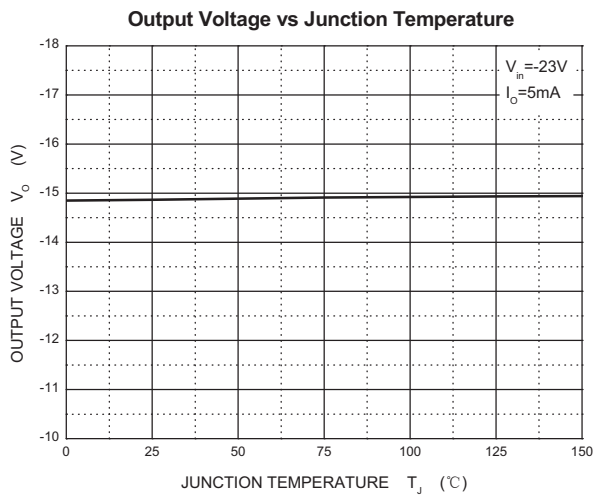
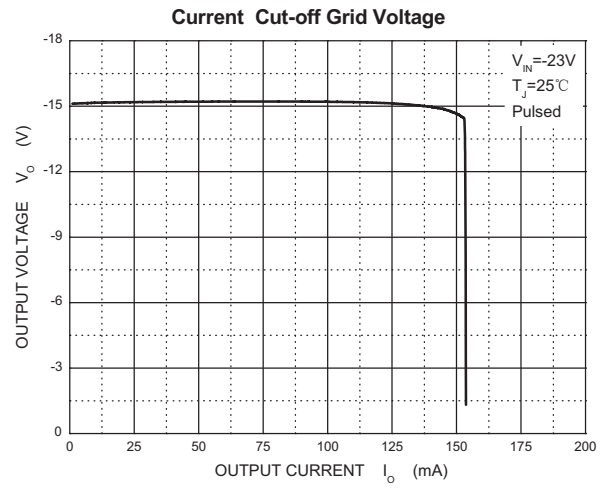
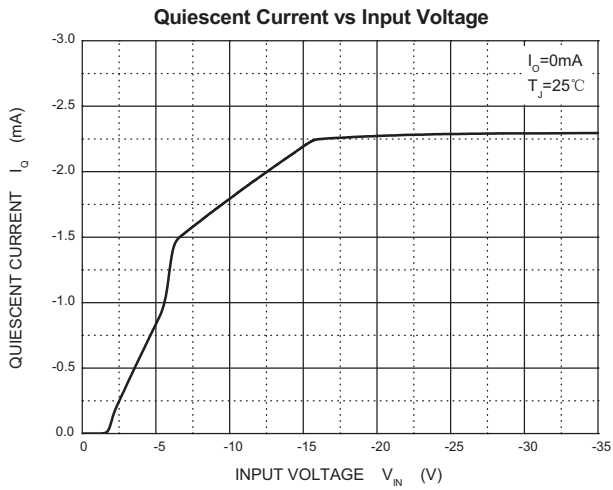
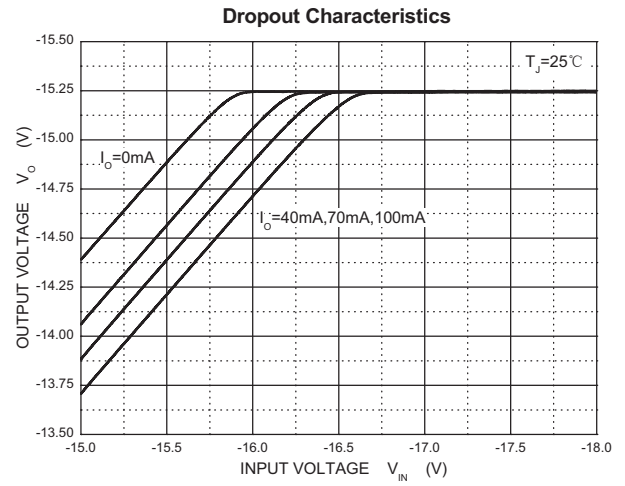
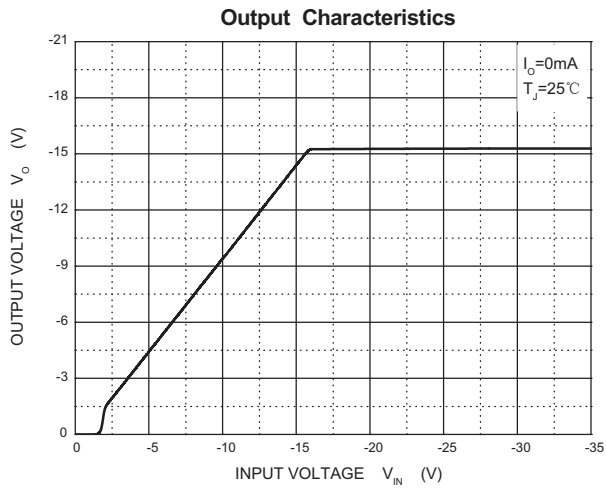
\* Pulse test.

**TYPICAL APPLICATION**

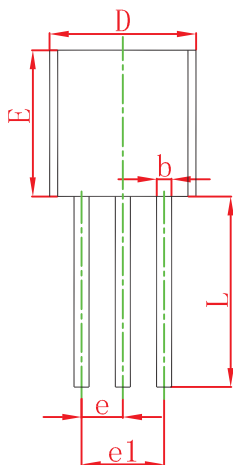
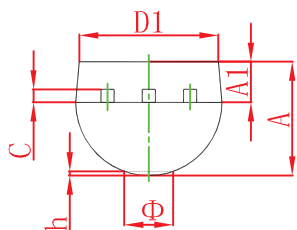


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

# Typical Characteristics

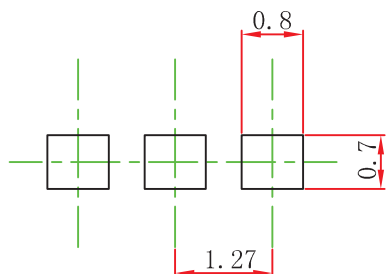


## TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

## TO-92 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.