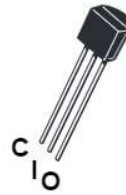
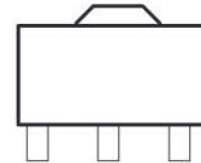


**79L15****Negative-Voltage Regulators**

- 3-Terminal Regulators
- Output Current Up to 100 mA
- No External Components Required
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current Limiting
- Direct Replacement for Motorola MC79L15 Series



TO-92
79L15ACZ



SOT-89
79L15CPK COMMON INPUT OUTPUT

description

This series of fixed negative-voltage integrated-circuit voltage regulators is designed for a wide range of applications. These include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used to control series pass elements to make high-current voltage-regulator circuits. One of these regulators can deliver up to 100 mA of output current. The internal current-limiting and thermal-shutdown features make them essentially immune to overload. When used as a replacement for a zener-diode and resistor combination, these devices can provide effective improvement in output impedance of two orders of magnitude, with lower bias current.

electrical characteristics at specified virtual junction temperature, $V_I = -23V$, $I_O = 40mA$ otherwise noted)

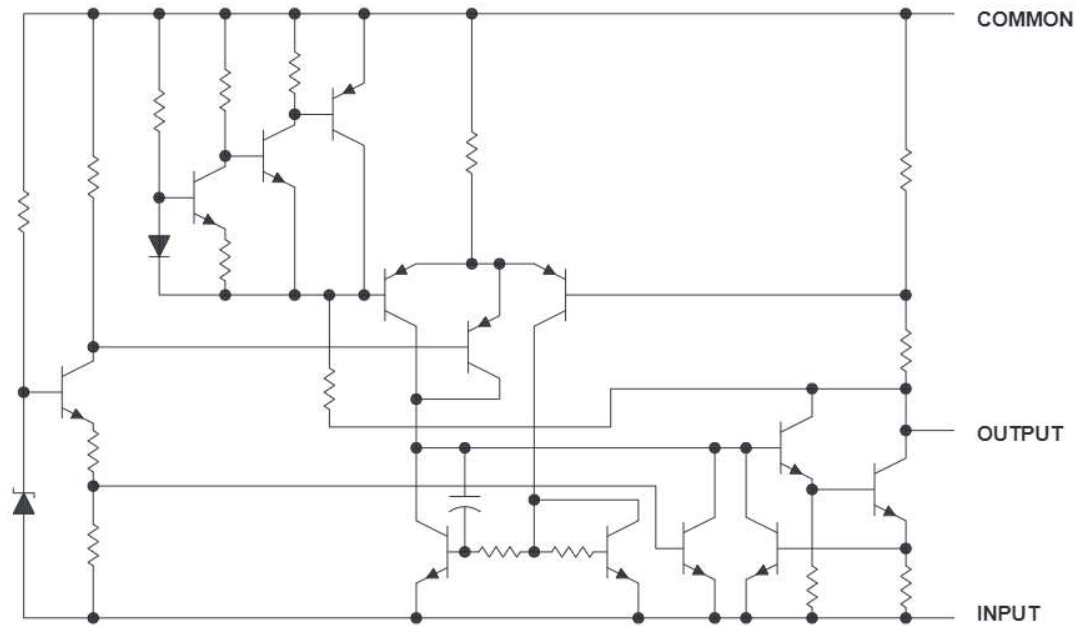
PARAMETER	TEST CONDITIONS	T ‡	79L15			UNIT
			MIN	TYP	MAX	
Output voltage		25°C	-14.4	-15	-15.6	V
	$I_O = 1mA$ to 40mA, $V_I = -17.5V$ to -30V	Full range	-11.25		-15.75	
	$I_O = 1mA$ to 70mA	Full range	-11.25		-15.75	
Input voltage regulation	$V_I = -17.5V$ to -30V	25°C		65	300	mV
	$V_I = -20V$ to -30V			50	250	
Ripple rejection	$V_I = -18.5V$ to -28.5V, $f = 120Hz$	25°C	34	39		dB
Output voltage regulation	$I_O = 1mA$ to 100 mA	25°C		25	150	mV
	$I_O = 1mA$ to 40 mA			15	75	
Output noise voltage	$f = 10Hz$ to 100 kHz	25°C		90		µV
Dropout voltage		25°C		1.7		V
Bias current		25°C			6.5	mA
		125°C			6	
Bias current change	$V_I = -20V$ to -30V	Full range			1.5	mA
	$I_O = 1mA$ to 40 mA				0.1	

‡ Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 0.33-µF capacitor across the input and a 0.1-µF capacitor across the output. Full range for the 79L15 is $T_J = 0°C$ to 70°C

WS

79L15

equivalent schematic



absolute maximum ratings over operating free-air temperature range (unless otherwise noted)†

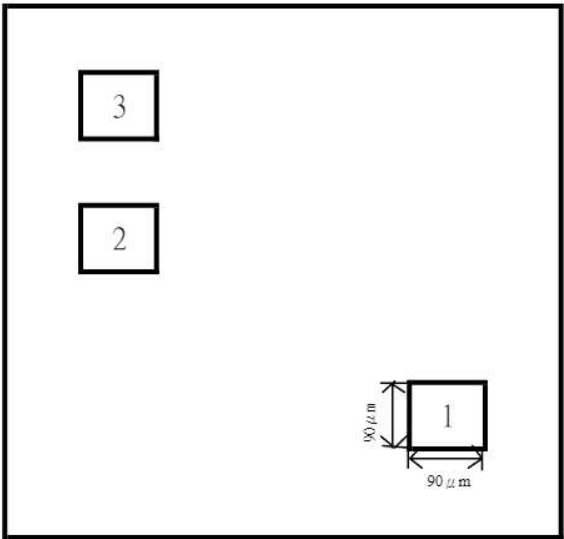
Input voltage: 79L15	-35V
Operating free-air, case, or virtual junction temperature.	150 °C
Lead temperature 1.6 mm (1/16 inch) from case for 10 seconds	260°C
Storage temperature range, T _{stg}	-65°C to 150°C

recommended operating conditions

79L15	MIN	MAX	UNIT
Input voltage, V _I	-17.5	-30	V
Output current, I _O		100	mA
Operating virtual junction temperature, T _J	0	70	°C

**WS
79L15**

Pad Location WS79L00



chip size 1.15 x 1.35mm

Pad Location Coordinates

Pad N	Pad Name	X(μ m)	Y(μ m)
1	Ground	1150	115
2	Input	115	690
3	Output	115	950

