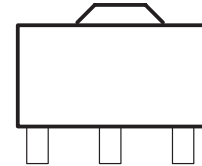


- 3-Terminal Regulators
- Output Current Up to 100 mA
- No External Components Required
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current Limiting
- Direct Replacement for Motorola MC79L Series



TO-92



### description

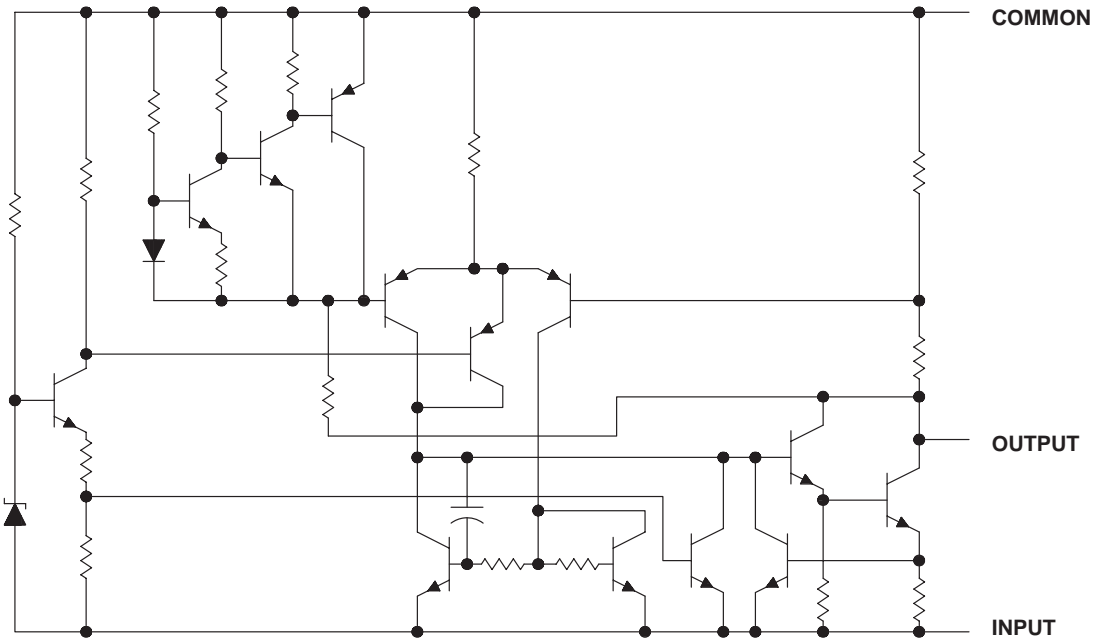
This series of fixed negative-voltage integrated-circuit voltage regulators is designed for a wide range of applications. These include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used to control series pass elements 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 ef current.

### electrical characteristics at specified virtual junction temperature, $V_I =$ otherwise noted)

PARAMETER	TEST CONDITIONS	T ‡				UNIT
			MIN	TYP	MAX	
Output voltage	o $I_O =$	25°C				V
		Full range				
		Full range				
Input voltage regulation	$V_I =$	o				
	$V_I =$					
Ripple rejection	$V_I =$	25°C				dB
Output voltage regulation	$I_O = 1 \text{ mA to } 100 \text{ mA}$	o				
	$I_O = 1 \text{ mA to } 40 \text{ mA}$					
Output noise voltage	f = 10 Hz to 100 kHz	25°C				µV
Dropout voltage		25°C		1.7		V
		125°C				
Bias current change	$V_I =$	range			1.5	
	$I_O = 1 \text{ mA to } 40 \text{ mA}$				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 7  $J = 0^\circ\text{C to } 70^\circ\text{C}$

**equivalent schematic**



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

Input voltage: 79L .....

Operating free-air, case, or virtual junction temperature. .... °C

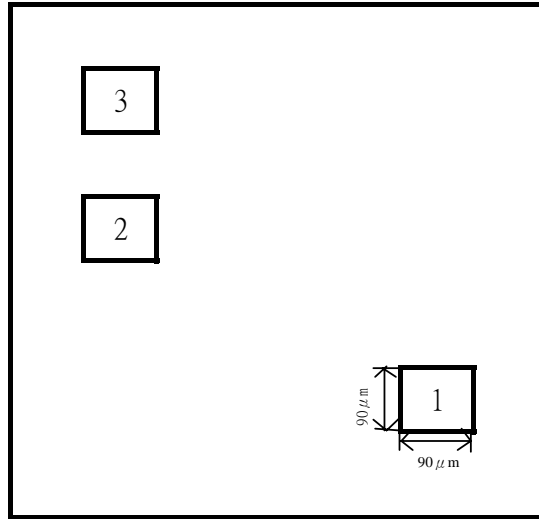
Lead temperature 1.6 mm (1/16 inch) from case for 10 seconds ..... 260°C

Storage temperature range,  $T_{stg}$  ..... -65°C to 150°C

**recommended operating conditions**

79L	MIN	MAX	UNIT
Input voltage, $V_I$			V
Output current, $I_O$		100	mA
Operating virtual junction temperature, $T_J$	0		°C

## Pad Location WS79L00



chip size 1.15 x 1.35mm

### Pad Location Coordinates

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