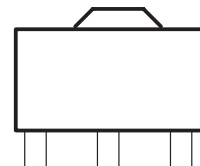


- 3-Terminal Regulators
- Output Current Up to 100 mA
- No External Components Required
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current Limiting
- Direct Replacement for Motorola MC79L00 Series



TO-92



## description

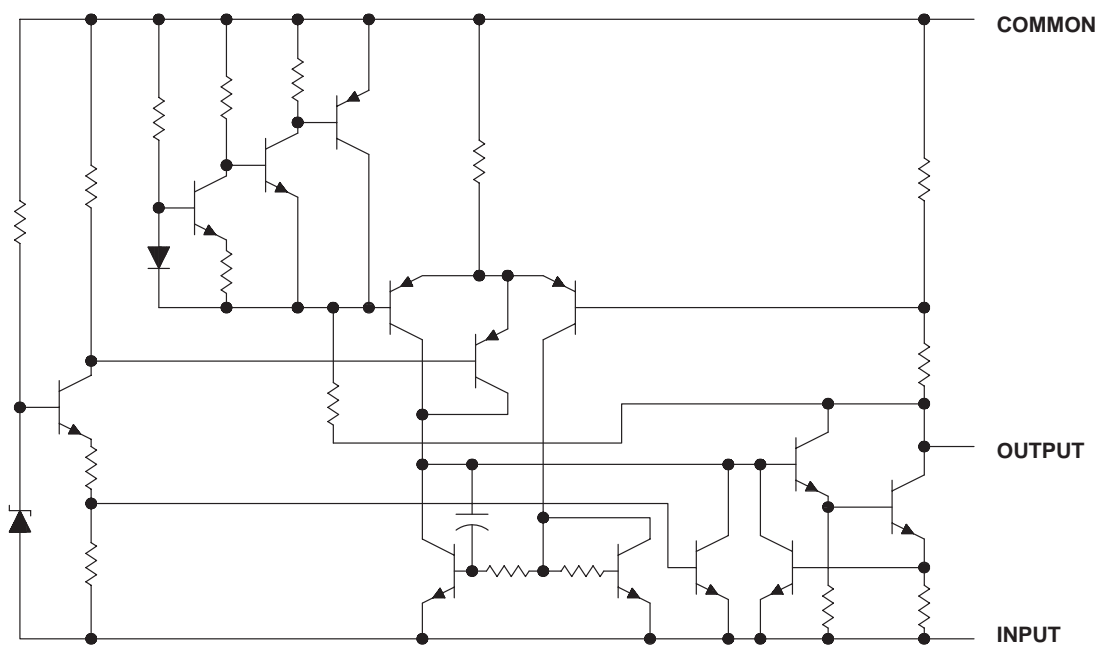
This series of fixed negative-voltage integrated-circuit voltage regulators is designed for a wide range of applications. These include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used to control series pass elements 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, $V_I = 10\text{ V}$ , $I = 40\text{ mA}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS	T ‡				UNIT
			MIN	TYP	MAX	
Output voltage	o $I_O = 1\text{ mA to }70\text{ mA}$	25°C				V
		Full range				
		Full range				
Input voltage regulation	$V_I =$	°			150	
	$V_I =$				100	
Ripple rejection	$V_I =$ f = 120 Hz	25°C	41	49		dB
Output voltage regulation	$I_O = 1\text{ mA to }100\text{ mA}$	°			60	
	$I_O = 1\text{ mA to }40\text{ mA}$				30	
Output noise voltage	f = 10 Hz to 100 kHz	25°C				µV
Dropout voltage		25°C		1.7		V
		25°C			6	
		125°C			5.5	
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°C to 70°C

**equivalent schematic**



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

Input voltage: 79L05 .....

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

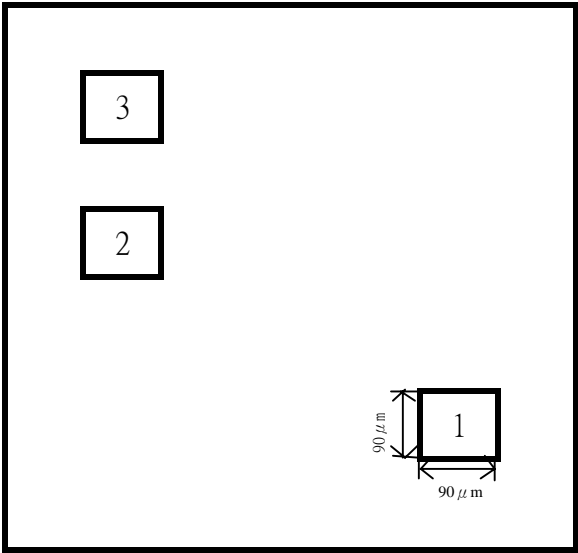
Lead temperature 1.6 mm (1/16 inch) from case for 10 seconds ..... 260°C

Storage temperature range, T<sub>stg</sub> ..... -65°C to 150°C

**recommended operating conditions**

79L05	MIN	MAX	UNIT
Input voltage, V <sub>I</sub>	-7	-20	v
Output current, I <sub>O</sub>		100	mA
Operating virtual junction temperature, T <sub>J</sub>	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