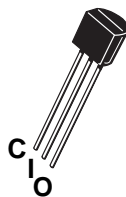
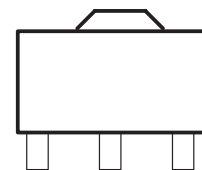


- 3-Terminal Regulators
- Output Current Up to 100 mA
- No External Components Required
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current Limiting
- Direct Replacement for Motorola MC79L18 Series



TO-92
79L18ACZ



SOT-89
79L18CPK



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.

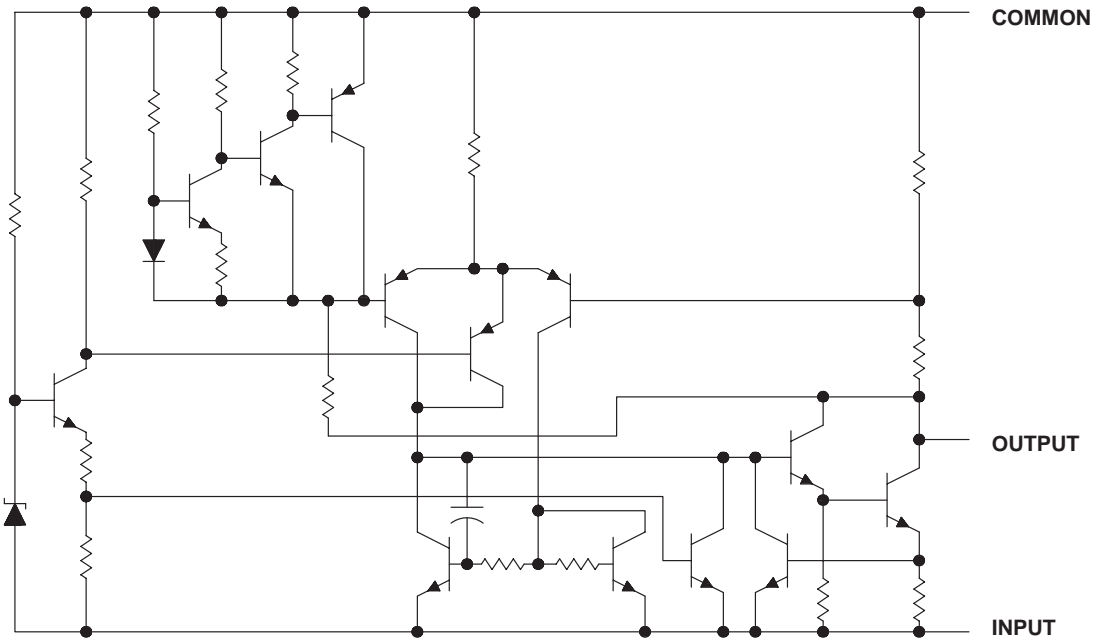
electrical characteristics at specified virtual junction temperature, $V_I = -26V$, $I_O = 40mA$ otherwise noted)

PARAMETER	TEST CONDITIONS	T ‡	79L18			UNIT
			MIN	TYP	MAX	
Output voltage	$I_O = 1mA$ to $40mA$, $V_I = -20.5$ to $-33V$ $I_O = 1$ mA to 70 mA	25°C	-17.3	-18	-18.7	V
		Full range	-17.1		-18.9	
		Full range	-17.1		-18.9	
Input voltage regulation	$V_I = -20.5$ to $-33V$	25°C		70	325	mV
	$V_I = -21V$ to $-33V$			60	275	
Ripple rejection	$V_I = -23V$ to $-33V$ f = 120 Hz	25°C	33	48		dB
Output voltage regulation	$I_O = 1$ mA to 100 mA	25°C		27	170	mV
	$I_O = 1$ mA to 40 mA			19	85	
Output noise voltage	f = 10 Hz to 100 kHz	25°C		150		µV
Dropout voltage		25°C		1.7		V
Bias current		25°C			6.5	mA
		125°C			6	
Bias current change	$V_I = -21V$ to $-33V$ $I_O = 1$ mA to 40 mA	Full range			1.5	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 79L18 is $T_J = 0°C$ to $70°C$

WS 79L18

equivalent schematic



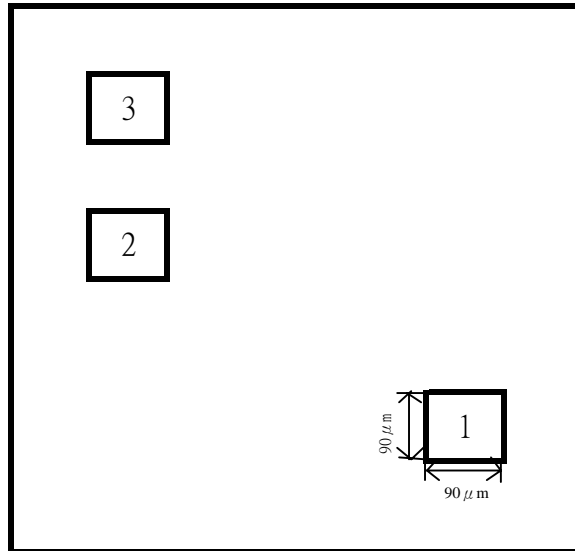
absolute maximum ratings over operating free-air temperature range (unless otherwise noted)†

- Input voltage: 79L18 -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

79L18	MIN	MAX	UNIT
Input voltage, V_I	-20.5	-33	V
Output current, I_O		100	mA
Operating virtual junction temperature, T_J	0	70	°C

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