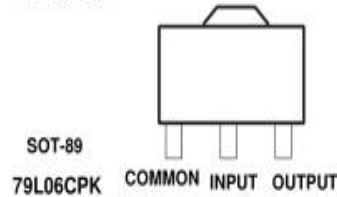
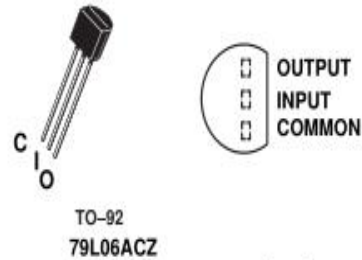


79L06 Negative-Voltage Regulators

- 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 MC79L06 Series



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.

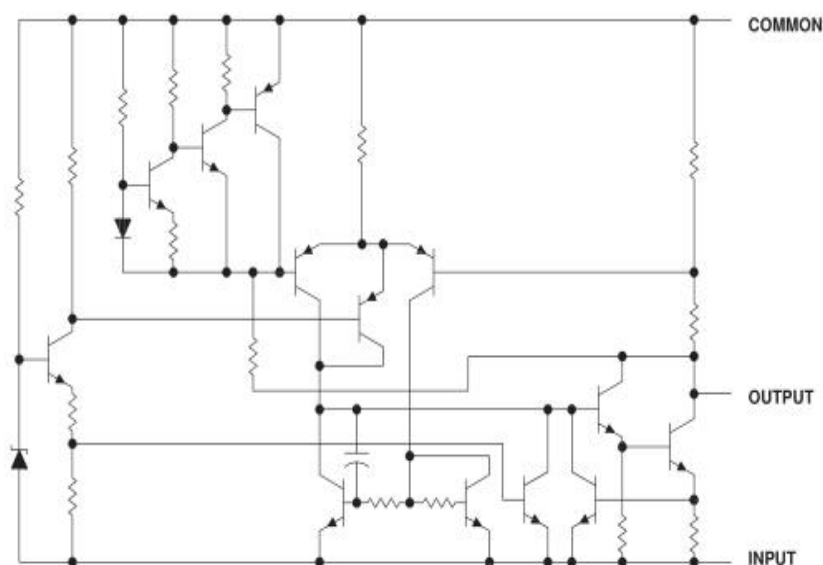
electrical characteristics at specified virtual junction temperature, $V_I = 11V$, $I_O = 40mA$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS	T ‡	79L06			UNIT
			MIN	TYP	MAX	
Output voltage	$I_O = 1$ to 70mA, $V = -12V$ to $-20V$	25°C	-5.76	-6	-6.24	V
		Full range	-5.7		-6.3	
		Full range	-5.7		-6.3	
Input voltage regulation	$V_I = -8.5$ to $-20V$	25°C		55	175	mV
	$V_I = -9V$ to $-20V$			45	125	
Ripple rejection	$V_I = -10V$ to $-20V$ $f = 120$ Hz	25°C		49		dB
Output voltage regulation	$I_O = 1$ mA to 40mA	25°C		9		mV
	$I_O = 1$ mA to 100mA			16		
Output noise voltage	$f = 10$ Hz to 100 kHz	25°C				μV
Dropout voltage		25°C		1.7		V
Bias current		25°C		3	6	mA
		125°C			5.5	
Bias current change	$V_I = -9V$ to $-20V$	Full range			1.5	mA
	$I_O = 1$ mA 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 79L06 is $T_J = 0^\circ C$ to $70^\circ C$

79L06

equivalent schematic



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

Input voltage: 79L06 -30V

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

79L06	MIN	MAX	UNIT
Input voltage, V_I	-8	-20	v
Output current, I_O		100	mA
Operating virtual junction temperature, T_J	0	70	°C