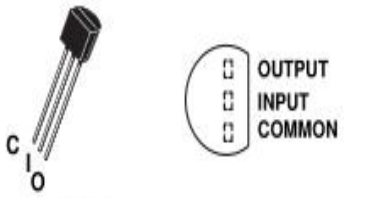
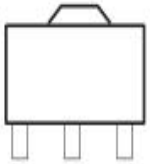
Yixin

79L08 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
- Provided Pb-Free packages from the end of 2004



TO-92
79L08ACZ



SOT-89
79L08CPK
COMMON INPUT OUTPUT

description

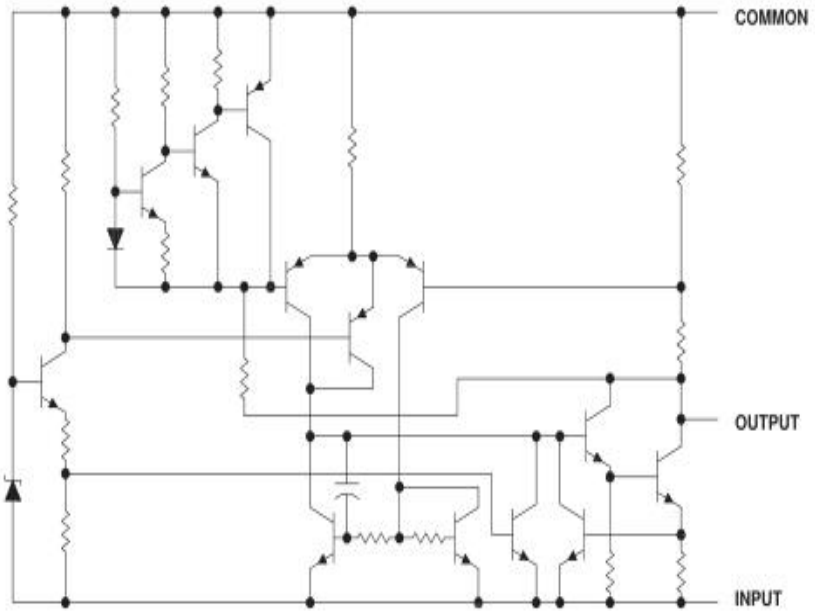
This series of fixed negative-voltage integrated-circuit voltage regulators is designed for a wide range of applications. These include on-card regulation for elimination of noise and distribution problems associatedwith single-point regulation. In addition, they can be used to control series pass elements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

electrical characteristics at specified virtual junction temperature, V_I = -14V, I_O = 40mA (unless otherwise noted)

PARAMETER	TEST CONDITIONS	T ‡	79L06			UNIT
			MIN	TYP	MAX	
Output voltage		25°C	-7.7	-8	-8.3	V
	I_O=1 to 40mA, V = -10.5V to -23V	Full range	-7.6		-8.4	
	Io=1mA to 70mA					
Input voltage regulation	V_I = -10.5V to -23V	25°C		42	200	mV
	V_I = -11V to -23V			36	150	
Ripple rejection	V_I = -11V to -23V f = 120 Hz	25°C	37	46		dB
Output voltage regulation	I_O = 1 mA to 40mA	25°C		15	50	mV
	I_O = 1 mA to 100mA			30	100	
Output noise voltage	f = 10 Hz to 100 kHz	25°C		54		µV
Dropout voltage		25°C		1.7		V
Bias current		25°C		3	6	mA
		125°C			5.5	
Bias current change	V_I = -11V to -23V	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 79L08 is T_J = 0°C to 70°C

equivalent schematic



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

Input voltage: 79L08 ..... -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

79L08	MIN	MAX	UNIT
Input voltage, V_I	-10.5	-23	V
Output current, I_O		100	mA
Operating virtual junction temperature, T_J	0	70	°C