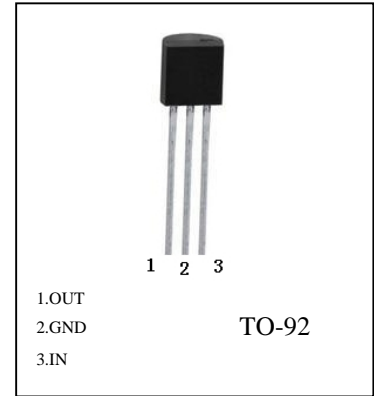


**FEATURES**

Maximum Output current  $I_O$ : 0.1 A  
 Output voltage  $V_O$ : 8 V  
 Continuous total dissipation  $P_D$ : 0.625 W ( $T_a=25\text{ }^\circ\text{C}$ )

**78L08**



**ABSOLUTE MAXIMUM RATINGS** (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	TOPR	0-125	$^\circ\text{C}$
Storage Temperature Range	TSTG	-65-150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS** ( $V_i=10\text{V}, I_o=500\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	$V_o$	$25\text{ }^\circ\text{C}$	7.7	8.0	8.3	V	
		0-125 $^\circ\text{C}$	10.5V $V_i$ 23V, $I_o=1\text{mA}\sim 40\text{mA}$	7.6	8.0	8.4	V
			$I_o=1\text{mA}\sim 70\text{mA}$	7.6	8.0	8.4	V
Load Regulation	$V_o$	$I_o=1\text{mA}\sim 100\text{mA}$ , $25\text{ }^\circ\text{C}$		18	80	mV	
		$I_o=1\text{mA}\sim 40\text{mA}$ , $25\text{ }^\circ\text{C}$		10	40	mV	
Line regulation	$V_o$	10.5V $V_i$ 23V, $25\text{ }^\circ\text{C}$		42	175	mV	
		11V $V_i$ 23V, $25\text{ }^\circ\text{C}$		36	125	mV	
Quiescent Current	$I_q$	$25\text{ }^\circ\text{C}$		4	6	mA	
Quiescent Current Change	$I_q$	11V $V_i$ 23V, 0-125 $^\circ\text{C}$			1.5	mA	
	$I_q$	1mA $I_o$ 40mA, 0-125 $^\circ\text{C}$			0.1	mA	
Output Noise Voltage	$V_N$	10Hz f 100KHz, $25\text{ }^\circ\text{C}$		54		$\mu\text{V}$	
Ripple Rejection	RR	13V $V_i$ 23V, f=120Hz, 0-125 $^\circ\text{C}$	37	46		dB	
Dropout Voltage	Vd	$25\text{ }^\circ\text{C}$		1.7		V	

**78L08** Typical Characteristics

