

FEATURES

Maximum Output current I_O : 0.1 A
 Output voltage V_O : 8 V
 Continuous total dissipation P_D : 0.35 W ($T_a = 25^\circ\text{C}$)

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°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°C		18	80	mV	
		$I_o=1\text{mA}\sim 40\text{mA}$, 25°C		10	40	mV	
Line regulation	V_o	10.5V V_i 23V, 25°C		42	175	mV	
		11V V_i 23V, 25°C		36	125	mV	
Quiescent Current	I_q	25°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°C		54		μV	
Ripple Rejection	RR	13V V_i 23V, f=120Hz, 0-125 $^\circ\text{C}$	37	46		dB	
Dropout Voltage	V_d	25°C		1.7		V	

78L08 Typical Characteristics

