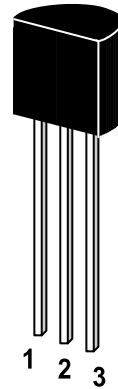


ST 78L08

3-Terminal positive voltage regulator

8V

- Suitable for TTL, DTL, HTL, C-MOS, Power Supply
- Internal Short-Circuit Current Limiting
- Internal Thermal Overload Protection
- Maximum Output Current of 150mA ($T_j=25^{\circ}\text{C}$)
- Available in the Plastic TO-92 Package

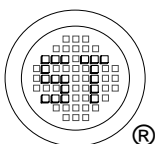


1. Output 2. Common 3. Input

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

	Symbol	Rating	Unit
Input Voltage	V_{IN}	35	V
Power Dissipation	P_{tot}	800	mW
Operating Temperature	T_{opr}	-30~75	$^{\circ}\text{C}$
Storage Temperature Range	T_s	-55~150	$^{\circ}\text{C}$



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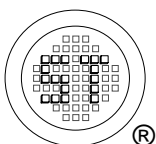
Dated : 07/12/2002

ST 78L08

Electrical Characteristics

(Unless otherwise specified, $V_{IN}=14V$, $I_{OUT}=40mA$, $C_{IN}=0.33\mu F$, $C_{OUT}=0.1\mu F$, $T_j=25^\circ C$)

	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	V_{OUT}		7.7	8	8.3	V
Input Regulation	Reg. line	$10.5V \leq V_{IN} \leq 23V$	-	20	175	mV
		$11V \leq V_{IN} \leq 23V$	-	12	125	
Load Regulation	Reg. load	$1.0mA \leq I_{OUT} \leq 100mA$	-	15	80	mV
		$1.0mA \leq I_{OUT} \leq 40mA$	-	7	40	
Output Voltage	V_{OUT}	$10.5V \leq V_{IN} \leq 23V$ $1.0mA \leq I_{OUT} \leq 40mA$	7.6	-	8.4	V
	V_{OUT}	$V_{IN}=14V$ $1.0mA \leq I_{OUT} \leq 70mA$	7.6	-	8.4	V
Quiescent Current	I_B		-	3.1	6.5	mA
Quiescent Current Change	With line	ΔI_B				mA
	With load					
		$11V \leq V_{IN} \leq 23V$	-	-	1.5	
		$1.0mA \leq I_{OUT} \leq 40mA$	-	-	0.1	
Output Noise Voltage	V_{NO}	$T_a=25^\circ C$, $10Hz \leq f \leq 100KHz$	-	60	-	μV
Ripple Rejection	RR	$f=120Hz$, $12V \leq V_{IN} \leq 23V, T_j=25^\circ C$	37	45	-	dB
Dropout Voltage	$ V_{IN}-V_{OUT} $	$T_j=25^\circ C$	-	1.7	-	V
Average Temperature Coefficient of Output Voltage	TC_{VO}	$I_{OUT}=5mA$	-	-0.8	-	$mV/^\circ C$



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