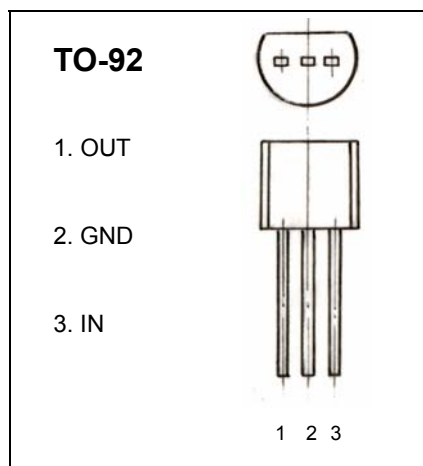


# 深圳市晶泰源电子有限公司

**WL 78L08** Three-terminal positive voltage regulator

## FEATURES

Maximum Output current  
 $I_{OM}$ : 0.1 A  
 Output voltage  
 $V_o$ : 8 V  
 Continuous total dissipation  
 $P_D$ : 0.625W



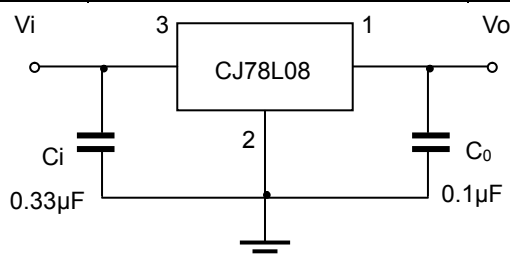
## ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°C

## ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=14V$ , $I_o=40mA$ , $C_i=0.33\mu F$ , $C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT	
Output voltage	$V_o$	$25^\circ C$	7.7	8.0	8.3	V	
		$10.5V \leq V_i \leq 23V$ , $I_o=1mA \sim 40mA$	0-125°C	7.6	8.0	8.4	V
		$I_o=1mA \sim 70mA$		7.6	8.0	8.4	V
Load Regulation	$\Delta V_o$	$I_o=1mA \sim 100mA$	$25^\circ C$	18	80	mV	
		$I_o=1mA \sim 40mA$	$25^\circ C$	10	40	mV	
Line regulation	$\Delta V_o$	$10.5V \leq V_i \leq 23V$	$25^\circ C$	42	175	mV	
		$11V \leq V_i \leq 23V$	$25^\circ C$	36	125	mV	
Quiescent Current	$I_q$		$25^\circ C$	4	6	mA	
Quiescent Current Change	$\Delta I_q$	$11V \leq V_i \leq 23V$	0-125°C		1.5	mA	
	$\Delta I_q$	$1mA \leq I_o \leq 40mA$	0-125°C		0.1	mA	
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	$25^\circ C$	54		uV	
Ripple Rejection	RR	$13V \leq V_i \leq 23V$ , $f=120Hz$	0-125°C	37	46	dB	
Dropout Voltage	$V_d$		$25^\circ C$	1.7		V	

## TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

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