

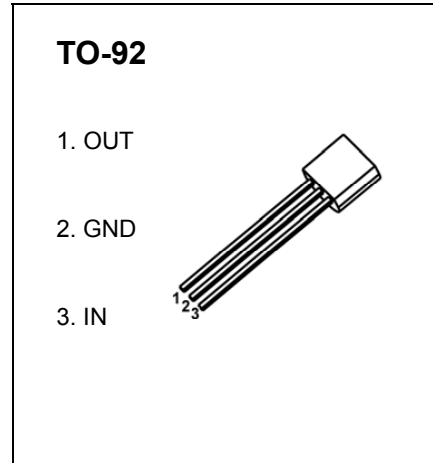


TO-92 Encapsulate Three-terminal Voltage Regulators

CJ78L08 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



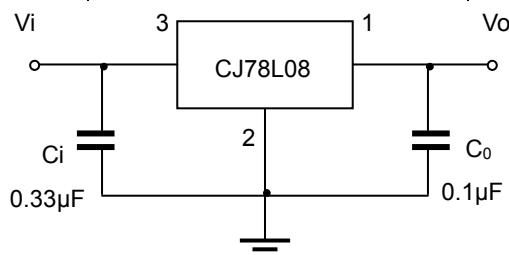
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°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	$10.5V \leq V_i \leq 23V, I_o=1mA \sim 40mA$	25°C	7.7	8.0	8.3	V
		$I_o=1mA \sim 70mA$	0-125°C	7.6	8.0	8.4	V
				7.6	8.0	8.4	V
Load Regulation	ΔV_o	$I_o=1mA \sim 100mA$	25°C		18	80	mV
		$I_o=1mA \sim 40mA$	25°C		10	40	mV
Line regulation	ΔV_o	$10.5V \leq V_i \leq 23V$	25°C		42	175	mV
		$11V \leq V_i \leq 23V$	25°C		36	125	mV
Quiescent Current	I_q		25°C		4	6	mA
Quiescent Current Change	ΔI_q	$11V \leq V_i \leq 23V$	0-125°C			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$	0-125°C			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C		54	μV	
Ripple Rejection	RR	$13V \leq V_i \leq 23V, f=120Hz$	0-125°C	37	46	dB	
Dropout Voltage	V_d		25°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.