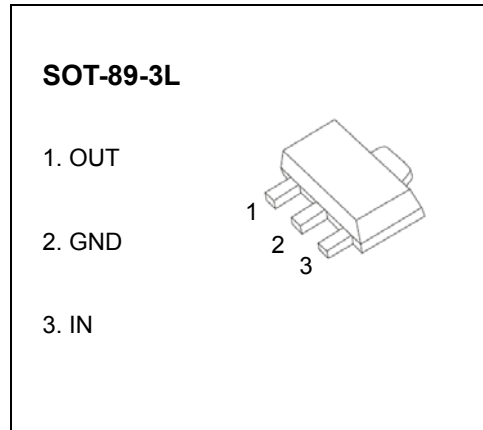


SOT-89-3L Encapsulate Three-terminal Voltage Regulators

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: 0.5W



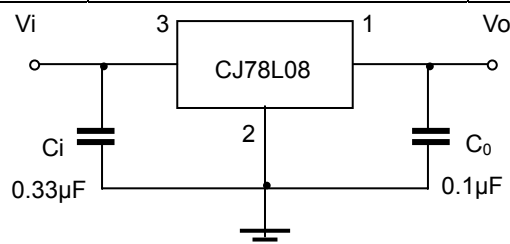
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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=0.33μF, C_o=0.1μF, 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°C	10.5V≤V _i ≤23V, I _o =1mA~40mA	7.6	8.0	8.4	V
			I _o =1mA~70mA	7.6	8.0	8.4	V
Load Regulation	ΔV _o	I _o =1mA~100mA	25°C	18	80	mV	
		I _o =1mA~40mA	25°C	10	40	mV	
Line regulation	ΔV _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	ΔI _q	11V≤V _i ≤23V	0-125°C		1.5	mA	
	ΔI _q	1mA≤I _o ≤40mA	0-125°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°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.