



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-89 Encapsulate Three Terminal Voltage Regulator

CJ78L08 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

V_O : 8 V

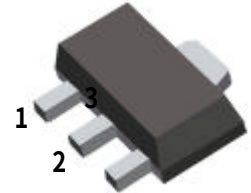
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

SOT-89

1. OUT

2. GND

3. IN



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

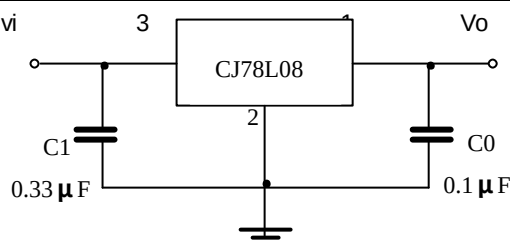
1

ELECTRICAL CHARACTERISTICS

($V_I=14V, I_O=40mA, 0^{\circ}C < T_J < 125^{\circ}C, C_1=0.33\mu F, C_O=0.1\mu F$, unless otherwise specified)

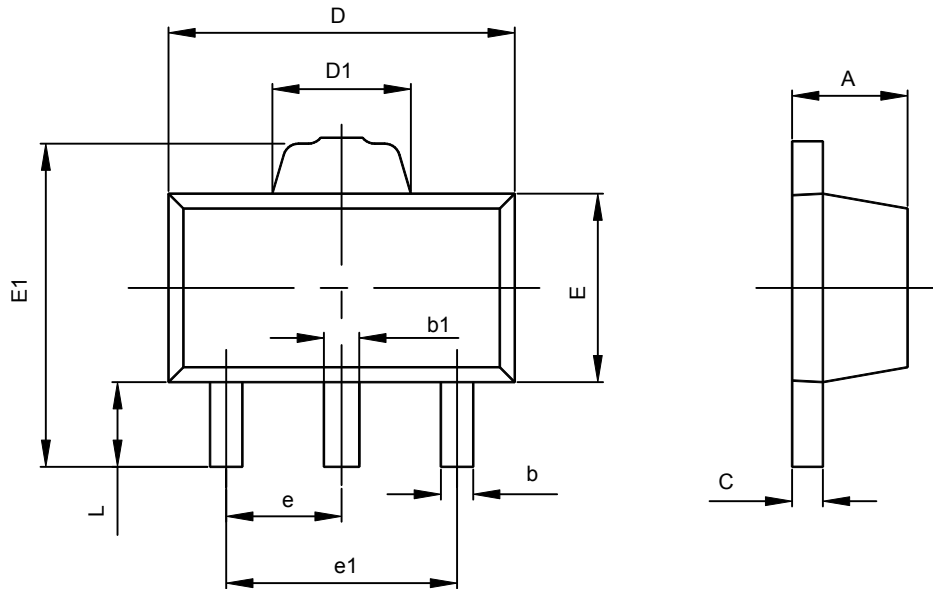
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	$T_J=25^{\circ}C$	7.7	8.0	8.3	V
		$10.5V \leq V_I \leq 23V, I_O=1mA-40mA$	7.6	8.0	8.4	V
		$10.5V \leq V_I \leq V_{MAX}, I_O=1mA-70mA$	7.6	8.0	8.4	V (note)
Load Regulation	ΔV_O	$T_J=25^{\circ}C, I_O=1mA-100mA$		18	80	mV
		$T_J=25^{\circ}C, I_O=1mA-70mA$		10	40	mV
Line regulation	ΔV_O	$10.5V \leq V_I \leq 23V, T_J=25^{\circ}C$		42	175	mV
		$11V \leq V_I \leq 23V, T_J=25^{\circ}C$		36	125	mV
Quiescent Current	I_Q	$25^{\circ}C$		4	6	mA
Quiescent Current Change	ΔI_Q	$11V \leq V_I \leq 23V$			1.5	mA
	ΔI_Q	$1mA \leq I_O \leq 40mA$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		54		uV
Ripple Rejection	RR	$13V \leq V_I \leq 23V, f=120Hz, T_J=25^{\circ}C$	37	46		dB
Dropout Voltage	V_d	$T_J=25^{\circ}C$		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.

SOT-89-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.360	0.560	0.014	0.022
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.400	1.800	0.055	0.071
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	2.900	3.100	0.114	0.122
L	0.900	1.100	0.035	0.043