JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23-3L Encapsulate Three Terminal Voltage Regulator

CJ78L08 Three-terminal positive voltage regulato

FEATURE

Maximum Output current

$I_{OM:}$ 0.1 A

Output voltage

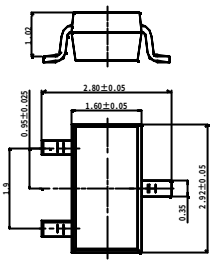
V_o: 8 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

SOT-23-3L

1.OUT
2.IN
3.GND



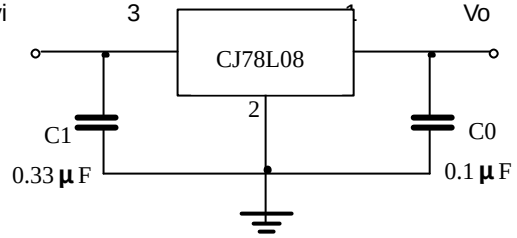
ABSOLUTE MAXIMUM RATINGS（Operating temperature range applies unless otherwise specified）

Parameter	Symbol	Value	Unlts
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0—+125	℃
Storage Temperature Range	T_{STG}	-55—+150	℃

ELECTRICAL CHARACTERISTICS(VI=14V,Io=40mA,0℃<Tj<125℃,C1=0.33μF,Co=0.1μF, unless otherwise specified)

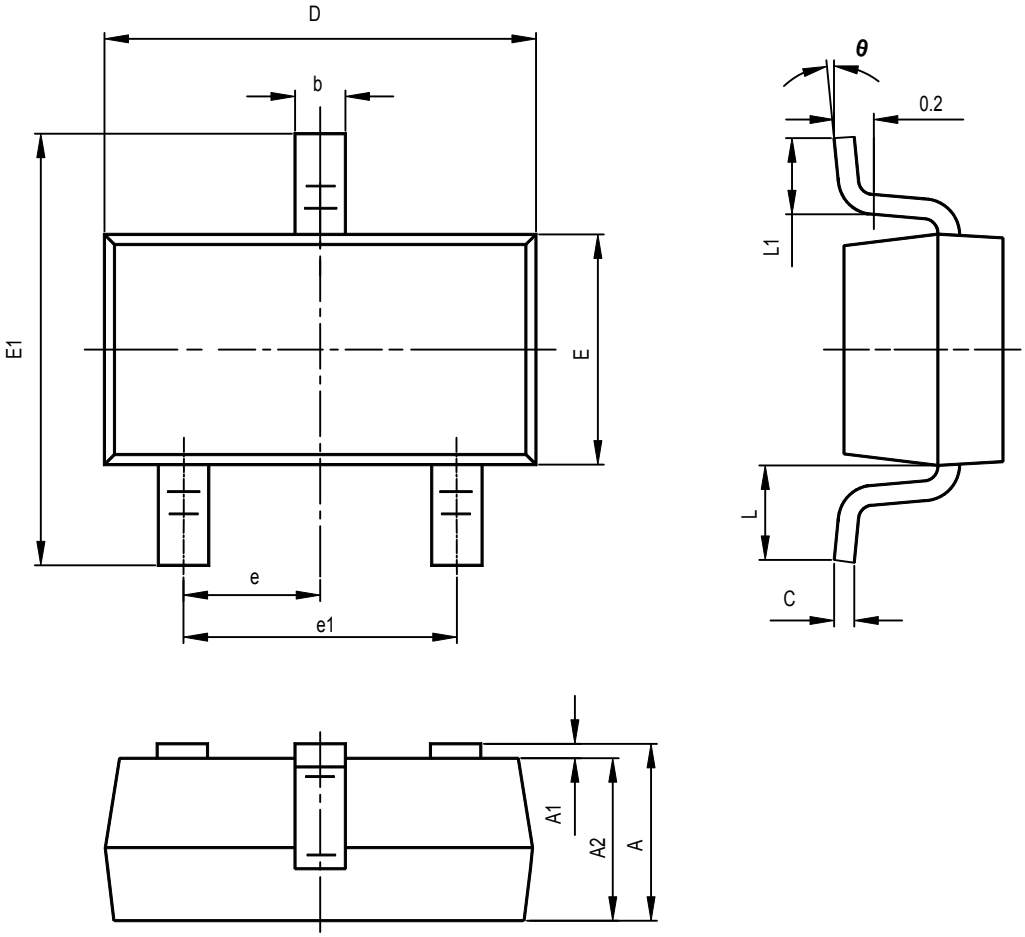
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	Tj=25℃	7.7	8.0	8.3	V
		10.5V≤V_I≤23V, Io=1mA-40mA	7.6	8.0	8.4	V
		10.5V≤V_I≤V_{MAX}, Io=1mA-70mA	7.6	8.0	8.4	V (note)
Load Regulation	△Vo	Tj=25℃, Io=1mA-100mA		18	80	mV
		Tj=25℃, Io=1mA-70mA		10	40	mV
Line regulation	△Vo	10.5V≤V_I≤23V, Tj=25℃		42	175	mV
		11V≤V_I≤23V, Tj=25℃		36	125	mV
Quiescent Current	Iq	25℃		4	6	mA
Quiescent Current Change	△Iq	11V≤V_I≤23V			1.5	mA
	△Iq	1mA≤V_I≤40mA			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz		54		uV
Ripple Rejection	RR	13V≤V_I≤23V,f=120Hz,Tj=25℃	39	70		dB
Dropout Voltage	Vd	Tj=25℃		1.7		V

TYPICAL APPLICATION



Note 1:Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

SOT-23-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.400	0.012	0.016
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950TPY		0.037TPY	
e1	1.800	2.000	0.071	0.079
L	0.700REF		0.028REF	
L1	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°