



SOT-23-3L Encapsulate Three Terminal Voltage Regulator

CJ78L05 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

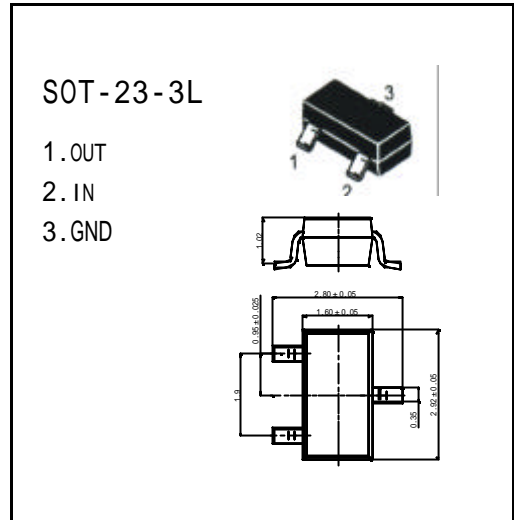
I_{OM} : 0.1 A

Output voltage

V_o : 5 V

Operating and storage junction temperature range

T_J, T_{stg} : -55 to +150



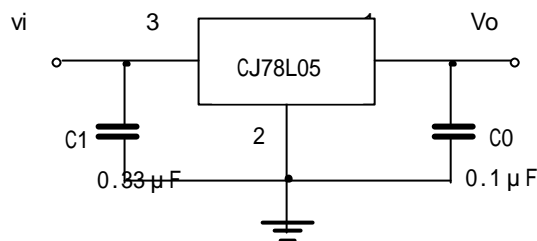
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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

ELECTRICAL CHARACTERISTICS($V_i=10V, I_o=40mA, 0 < T_j < 125, C_1=0.33 \mu F, C_o=0.1 \mu F$, unless otherwise specified)

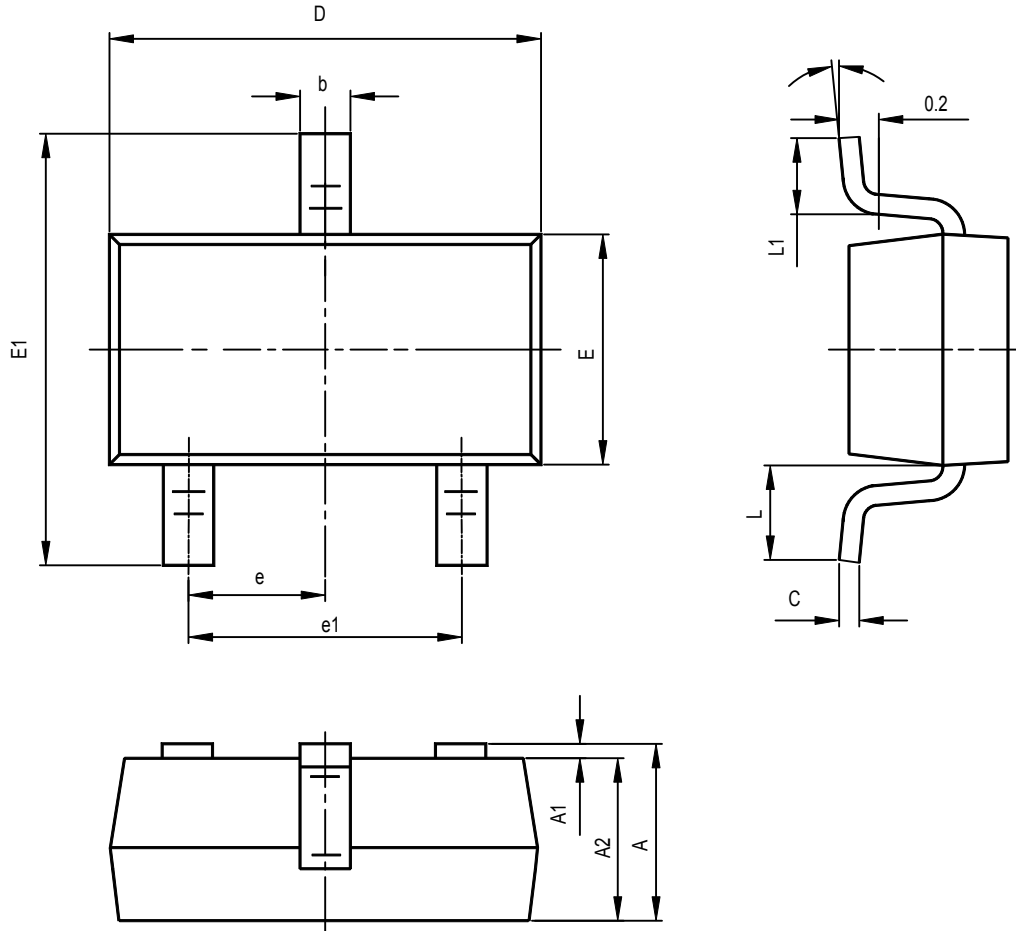
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25$	4.8	5.0	5.2	V
		7V V_i , 20V, $I_o=1mA-40mA$	4.75	5.0	5.25	V
		7V V_i , V_{MAX} , $I_o=1mA-70mA$	4.75	5.0	5.25	V (note)
Load Regulation	V_o	$T_j=25, I_o=1mA-100mA$		11	60	mV
		$T_j=25, I_o=1mA-40mA$		5.0	30	mV
Line regulation	V_o	7V V_i , 20V, $T_j=25$		32	150	mV
		8V V_i , 20V, $T_j=25$		26	100	mV
Quiescent Current	I_q	25oC		3.8	6	mA
Quiescent Current Change	I_q	8V V_i , 20V			1.5	mA
		1mA V_i , 40mA			0.1	mA
Output Noise Voltage	V_n	10Hz f 100KHz		42		uV
Ripple Rejection	RR	8V V_i , 18V, f=120Hz, $T_j=25$	41	80		dB
Dropout Voltage	V_d	$T_j=25$		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°