



TO-92 Encapsulate Three-terminal Voltage Regulator

CJ78L12 Three-terminal positive voltage regulator

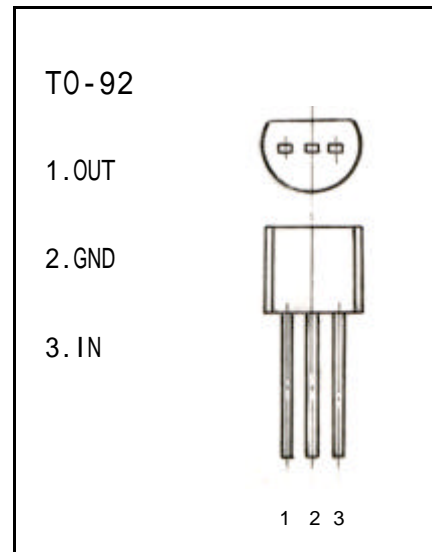
FEATURES

Maximum Output current

I_{OM} : 0.1A

Output voltage

V_o : 12 V



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

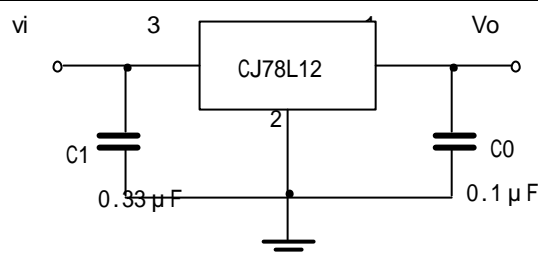
Parameter	Symbol	Value	Units
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0—+125	
Storage Temperature Range	T_{STG}	-55—+150	

UTC78L05 ELECTRICAL CHARACTERISTICS

($V_i=19V, I_o=40mA, 0 < T_j < 125$, $C_1=0.33 \mu F, C_o=0.1 \mu F$, unless otherwise specified)

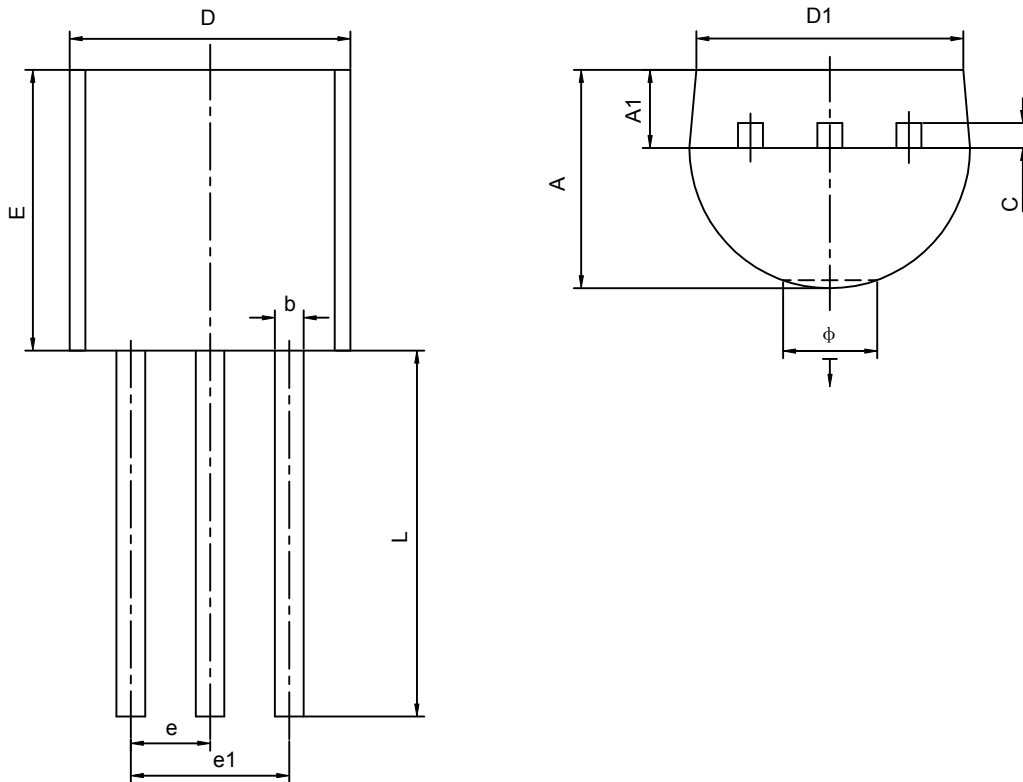
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25$	11.5	12	12.5	V
		14.5V V_i 27V, $I_o=1mA-40mA$	11.4	12	12.6	V
		14.5V V_i 27V, $I_o=1mA-70mA$	11.4	12	12.6	V (note)
Load Regulation	V_o	$T_j=25$, $I_o=1mA-100mA$		22	100	mV
		$T_j=25$, $I_o=1mA-40mA$		13	50	mV
Line regulation	V_o	14.5V V_i 27V, $T_j=25$		55	250	mV
		16V V_i 27V, $T_j=25$		49	200	mV
Quiescent Current	I_q			4.3	6.5	mA
Quiescent Current Change	I_q	16V V_i 27V			1.5	mA
	I_q	1mA I_o 40mA			0.1	mA
Output Noise Voltage	V_n	10Hz f 100KHz		70		μV
Ripple Rejection	RR	15V V_i 25V, f=120Hz, $T_j=25$	37	42		dB
Dropout Voltage	V_d	$T_j=25$		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.

TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
↓	0.000	0.380	0.000	0.015