



**TO-92 Encapsulate Three-terminal Voltage Regulator**

**CJ78L06** Three-terminal positive voltage regulator

**FEATURES**

Maximum Output current

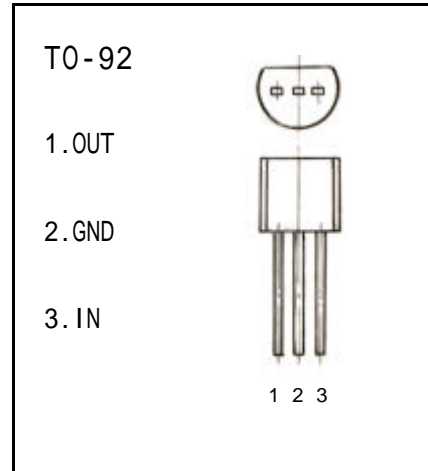
$I_{OM}$ : 0.1 A

Output voltage

$V_o$ : 6 V

Operating and storage junction temperature range

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



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

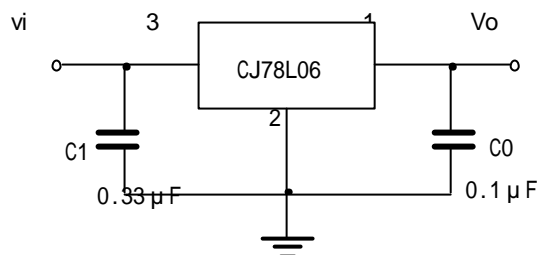
Parameter	Symbol	Value	Units
Input Voltage	$V_i$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0—+125	
Storage Temperature Range	$T_{STG}$	-55—+150	

**ELECTRICAL CHARACTERISTICS**

( $V_i=11V, I_o=40mA, 0 < T_j < 125$ ,  $C_1=0.33 \mu F, C_o=0.1 \mu F$ , unless otherwise specified )

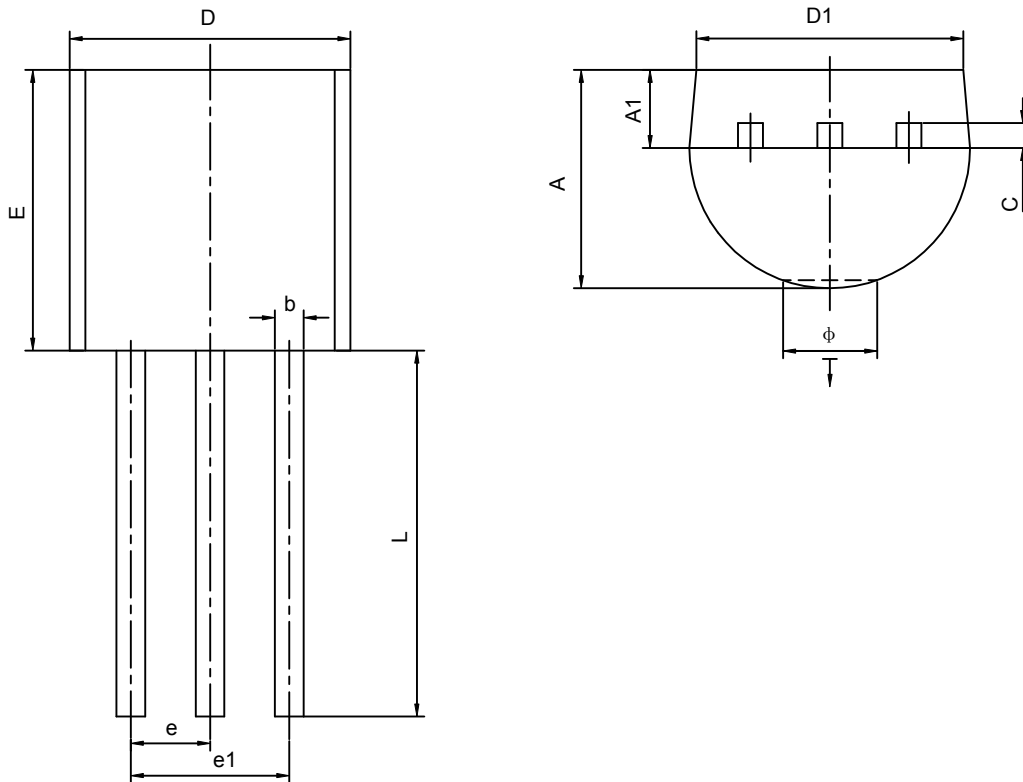
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25$	5.75	6.0	6.25	V
		$8V \leq V_i \leq 20V, I_o=1mA-40mA$	5.7	6.0	6.3	V
		$8V \leq V_i \leq 20V, I_o=1mA-70mA$	5.7	6.0	6.3	V (note)
Load Regulation	$V_o$	$T_j=25, I_o=1mA-100mA$		16	80	mV
		$T_j=25, I_o=1mA-40mA$		9	40	mV
Line regulation	$V_o$	$8.5V \leq V_i \leq 20V, T_j=25$		35	175	mV
		$9V \leq V_i \leq 20V, T_j=25$		29	125	mV
Quiescent Current	$I_q$	$T_j=25$		3.9	6.0	mA
Quiescent Current Change	$I_q$	$9V \leq V_i \leq 20V$			1.5	mA
		$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	$V_n$	10Hz $\leq f \leq$ 100KHz		46		$\mu V$
Ripple Rejection	RR	$9V \leq V_i \leq 19V, f=120Hz, T_j=25$	40	48		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