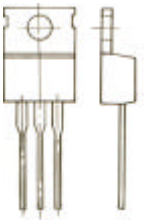
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220 Encapsulate Three-terminal Voltage Regulator

CJ7812 Three-terminal positive voltage regulator

TO—220



1.IN
2.GND
3.OUT

1 2 3

FEATURES

Maximum Output current

I_{OM} : 1 A

Output voltage

V_o : 12 V

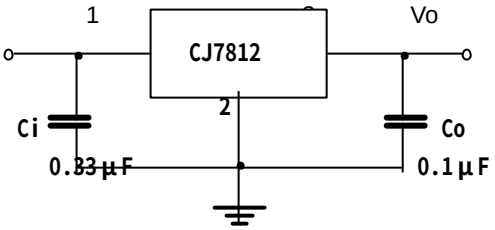
ABSOLUTE MAXIMUM RATINGS（Operating temperature range applies unless otherwise specified）

Parameter	Symbol	Value	Unit
Input Voltage	V_i	40	V
Operating Junction Temperature Range	T_{OPR}	0-125	℃
Storage Temperature Range	T_{STG}	-55-150	℃

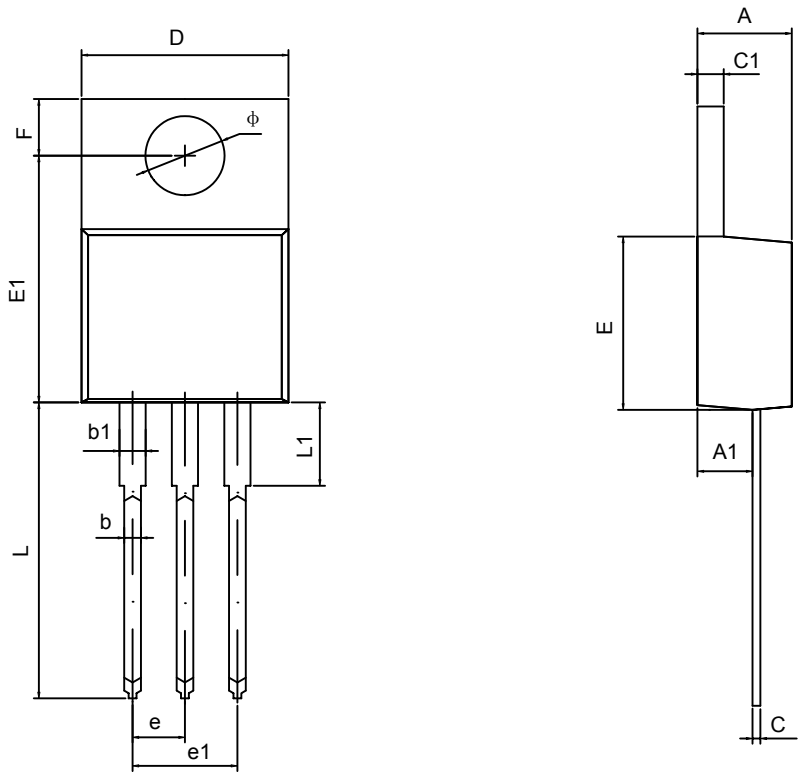
ELECTRICAL CHARACTERISTICS(Vi=19V,Io=500mA,0℃<Tj<125℃,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	Tj=25℃	11.5	12.0	12.5	V
		5.0mA<Io<1.0A, Po<15W V_i=14.5V to 27V	11.4	12	12.6	V
Load Regulation	△Vo	Tj=25℃, V_i=14.5V to 30V		10	240	mV
		Tj=25℃, V_i=16V to 22V		3	120	mV
Line regulation	△Vo	Tj=25℃, I_o=5.0mA to 1.5A		11	240	mV
		Tj=25℃, I_o=250mA to 750mA		5.0	120	mV
Quiescent Current	Iq	Tj=25℃		5.1	8	mA
Quiescent Current Change	△Iq	I_o=5.0mA to 1.0A			0.5	mA
		V_i=14.5V to 30V			1.0	mA
Output Noise Voltage	V_N	f =10Hz to 100KHz,Ta=25℃		76		μV
Ripple Rejection	RR	f =120Hz, V_i=15V to 25V	55	71		dB
Dropout Voltage	V_d	I_o=1.0A,Tj=25℃		2		V
Output resistance	R_o	f = 1KHz		18		mΩ
Short Circuit Current	Isc	V_i=35V, Ta=25℃		230		mA
Peak Current	Ipk	Tj=25℃		2.2		A

TYPICAL APPLICATION



TO-220-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	1.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.710	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540TYP		0.100TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.790	3.890	0.149	0.153