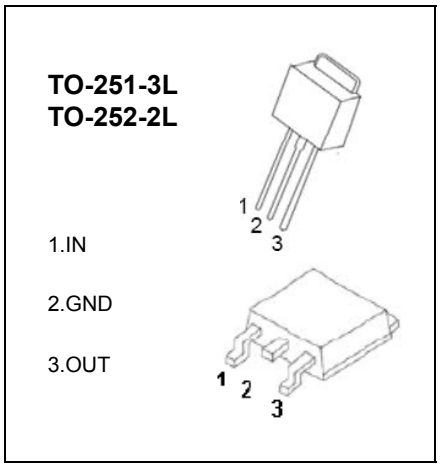
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-251-3L/TO-252-2L Plastic-Encapsulate Regulators

CJ78M12 Three-terminal positive voltage regulator



FEATURES

Maximum Output current I_{OM}: 0.5 A

Output voltage V_O: 12V

Continuous total dissipation

P_D: 1.25 W (Ta= 25 ℃)

15 W (Tc= 25 ℃)

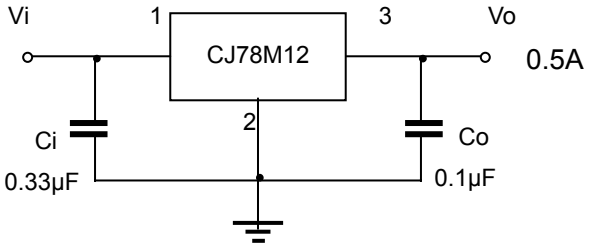
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	℃
Storage Temperature Range	T_{STG}	-65-+150	℃

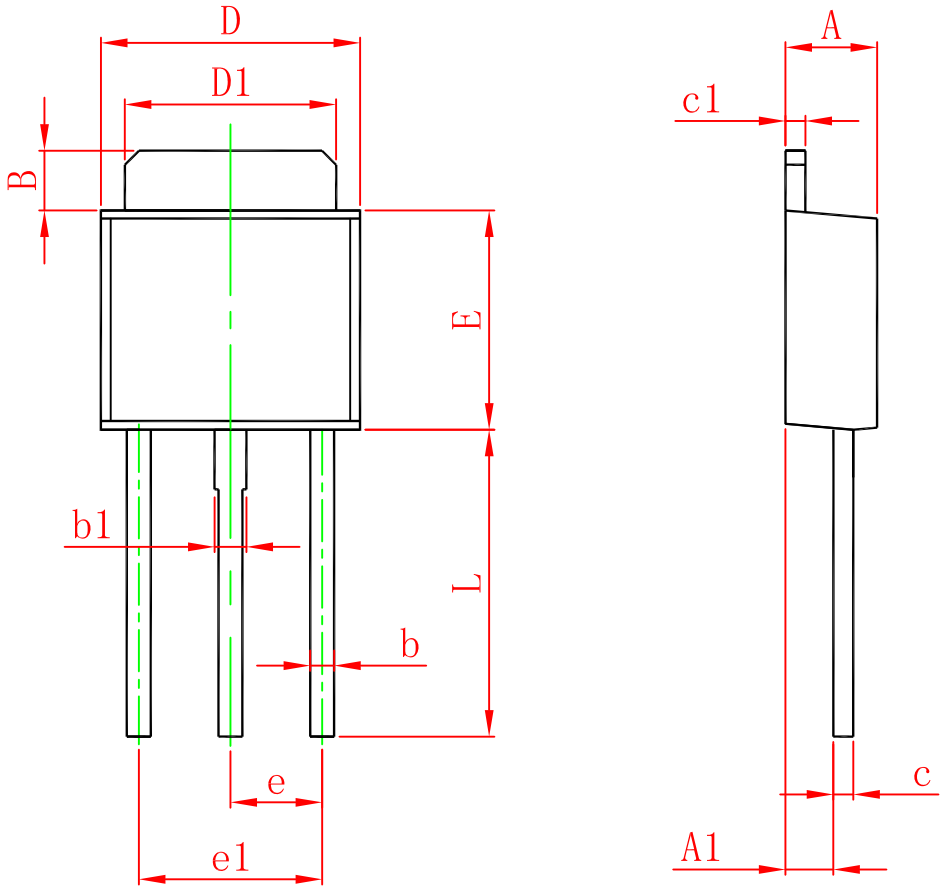
ELECTRICAL CHARACTERISTICS (Vi=19V,Io=350mA, Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25℃	11.5	12	12.5	V
		14.5≤V_i≤27V, Io=5mA-350mA Po≤ 1.25W	0-125℃	11.4	12	12.6	V
Load Regulation	ΔVo	Io=5mA-500mA	25℃		25	240	mV
		Io=5mA-200mA	25℃		10	120	mV
Line Regulation	ΔVo	14.5V≤V_i≤30V, Io=200mA	25℃		10	100	mV
		16V≤V_i≤30V, Io=200mA	25℃		3	50	mV
Quiescent Current	Iq		25℃		4.6	6	mA
Quiescent Current Change	ΔIq	14.5V≤V_i≤30V, Io=200mA	0-125℃			0.8	mA
	ΔIq	5mA≤I_O≤350mA	0-125℃			0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		75		μV
Ripple Rejection	RR	15≤V_i≤25V,f=120Hz,Io=300mA	0-125℃	55	80		dB
Dropout Voltage	Vd	Io=350mA	25℃		2		V
Short Circuit Current	Isc	Vi=19V	25℃		240		mA
Peak Current	Ipk		25℃		0.7		A

TYPICAL APPLICATION



TO-251-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311