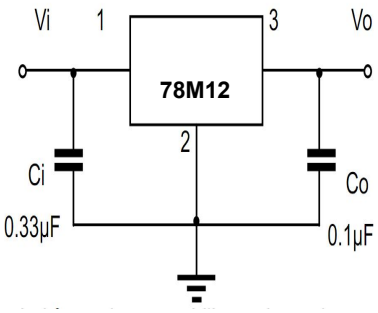
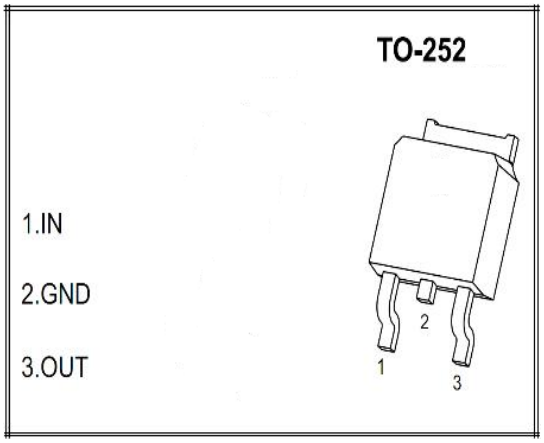
78M12 Three-terminal positive voltage regulator

FEATURES:

※ Maximum output current
IOM: 1A
※ Output voltage
VO: 12V
※ Continuous total dissipation
PD: 1.25W

TYPICAL APPLICATION:





›solute Maximum ratings (Operating temperature range applies unless otherwise specifie

Parameter	Symbol	Value	Unit
Input Voltage	Vi	35	V
Thermal Resistance From Junction to air	RθJA	80	℃/W
Operating Junction Temperature Range	TOPR	-25~+125	℃
Storage Temperature Range	TSTG	-55~+150	℃

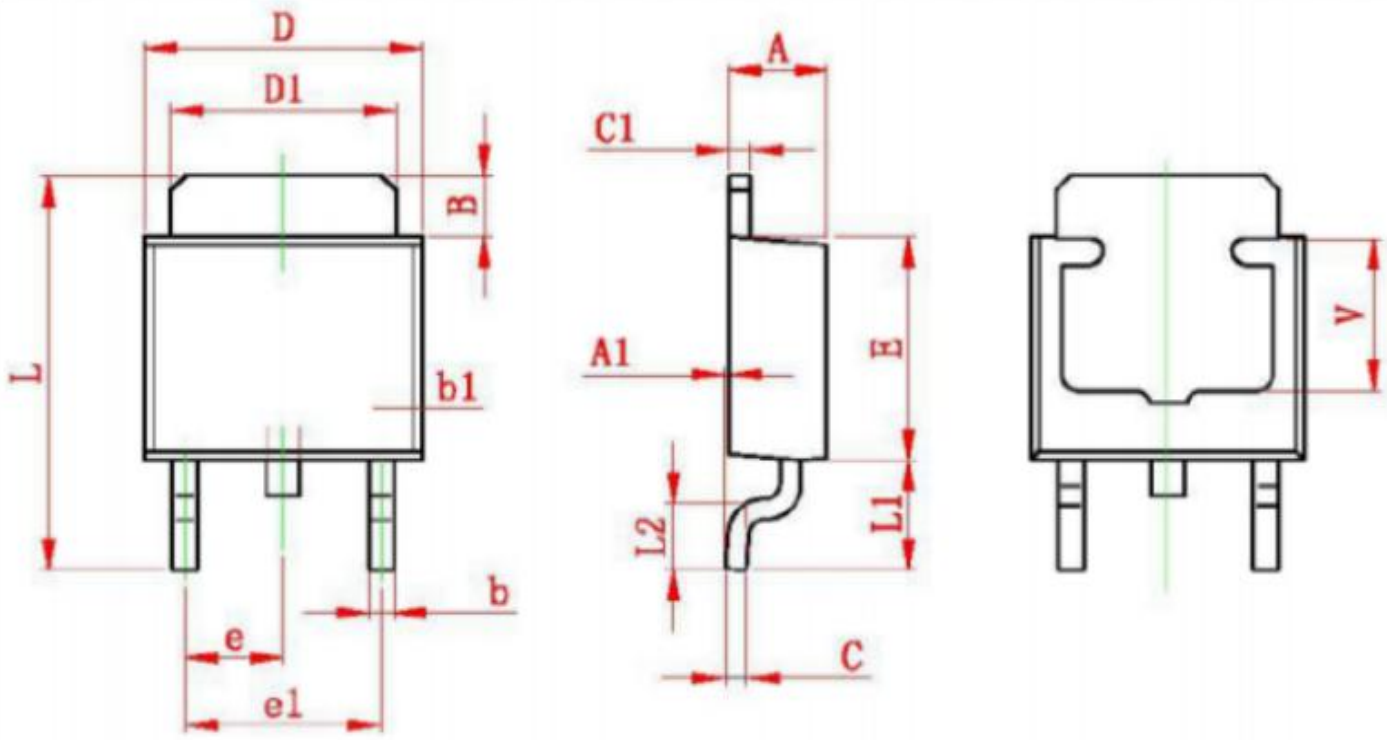
Electrical Characteristics At Specified Virtual Jinction Temperature
(Vi=19V, Io=350mA, Ci=0.33μF, Co=0.1μF. Unless Otherwise Specified)

Parameter	Symbol	Test Condition		Min	Typ	Max	Unit
Output voltage	VO		25℃	11.5	12	12.5	V
		14.5V≤Vi≤27V,Io=5mA-350mA	-25~+125	11.4	12	12.6	V
Load Regulation	ΔVO	Io=5mA-0.5A, Vi=19V	25℃		25	240	mV
		Io=5mA-200mA, Vi=19V	25℃		10	120	mV
Line Regulation	ΔVO	14.5V≤Vi≤30V, Io=200mA	25℃		10	100	mV
		16V≤Vi≤30V, Io=200mA	25℃		3	50	mV
Quiescent Current	Iq		25℃		4.6	6	mA
Quiescent Current Change	ΔIq	14.5V≤Vi≤30V, Io=200mA	-25~+125			0.8	mA
	ΔIq	5mA≤Io≤350mA	-25~+125			0.5	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25℃		75	200	μV/Vo
Ripple Rejection	Rr	15V≤Vi≤25V, f=120Hz,Io=300mA	-25~+125	55	80		dB
Dropout Voltage	Vd	Io=350mA	25℃		2	2.5	V
Short Circuit Current	Isc	Vi=19V	25℃		240		mA
Peak Current	IPK		25℃		0.7		A

Note :

Bypass Capacitors are Recommended For Optimum Stability and Transient Response and Should be located as Close as Possible to the Regulators

Package Dimensians:



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
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	9.500	9.900	0.374	0.390
L1	2.550	2.900	0.100	0.114
L2	1.400	1.780	0.055	0.070
V	3.80 REF		0.150 REF	