SHENZHEN MENGKE ELECTRONICS TECHNOLOGY CO.,LTD

TO-252/TO-251 Plastic-Encapsulate Voltage Regulators

MK78M18 Three-terminal positive voltage regulator

FEATURES:

※ Maximum output current

IOM: 1A

※ Output voltage

VO: 18V

※ Continuous total dissipation

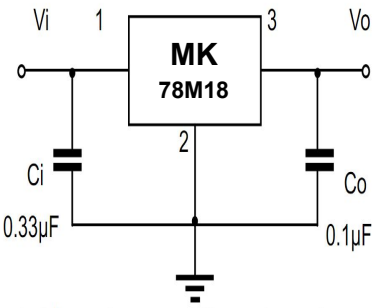
PD: 1.25W

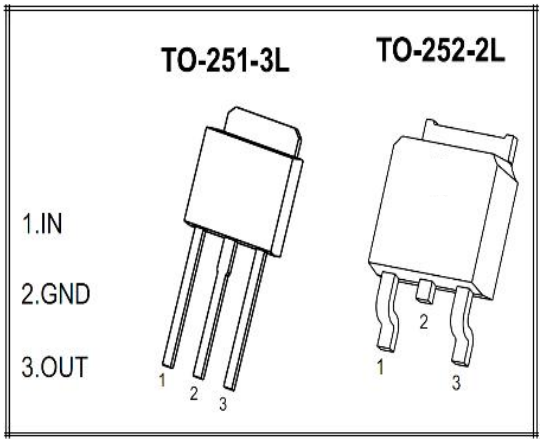
MARKING:

MK 78M18 MKD / U **

MK→logo (D→252) / (U→251) ****→Date

TYPICAL APPLICATION:





Absolute 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=27V, Io=350mA, Ci=0.33μF, Co=0.1μF. Unless Otherwise Specified)

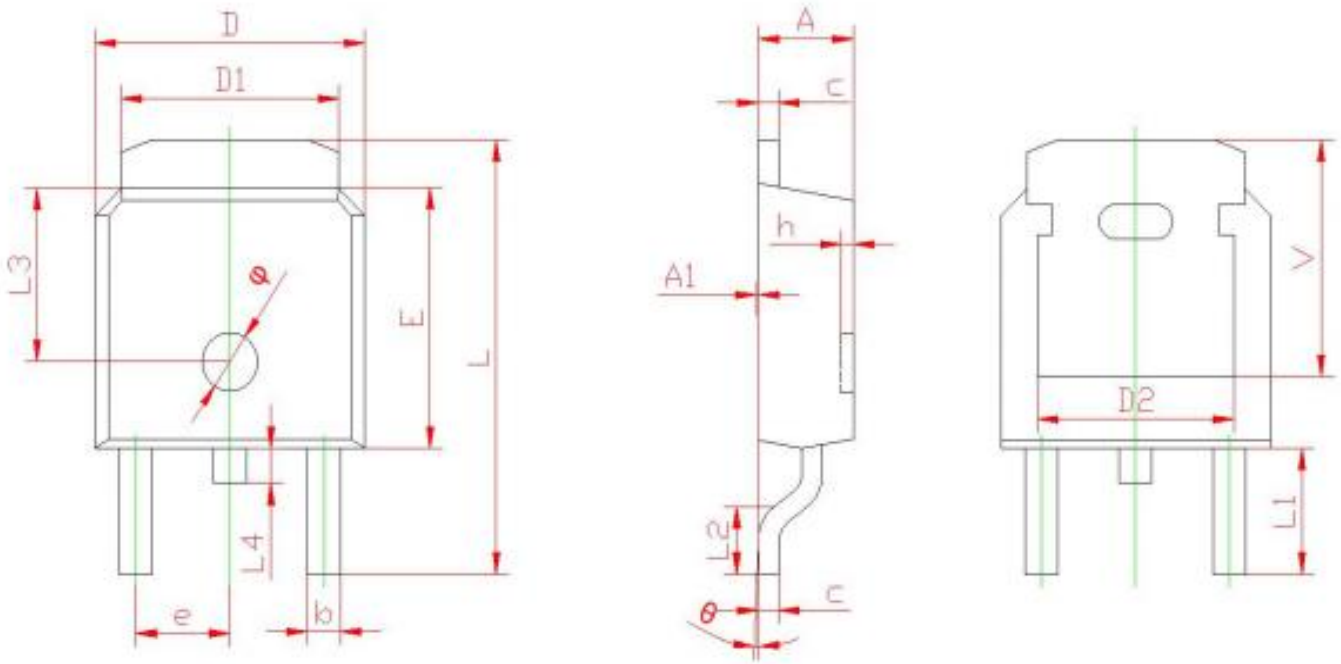
Parameter	Symbol	Test Condition		Min	Typ	Max	Unit
Output voltage	**VO**		25℃	17.28	18	18.72	V
		20.5V≤Vi≤33V,Io=5mA-350mA	-25~+125	17.1	18	18.9	V
Load Regulation	**ΔVO**	Io=5mA-0.5A, Vi=27V	25℃		35	360	mV
		Io=5mA-200mA, Vi=27V	25℃		20	180	mV
Line Regulation	**ΔVO**	21V≤Vi≤33V, Io=200mA	25℃		16	100	mV
		24V≤Vi≤33V, Io=200mA	25℃		10	50	mV
Quiescent Current	**Iq**		25℃		4.8	6	mA
Quiescent Current Change	**ΔIq**	21V≤Vi≤33V, Io=200mA	-25~+125			0.8	mA
	ΔIq	5mA≤Io≤350mA,Vi=27V	-25~+125			0.5	mA
Output Noise Voltage	**VN**	10Hz≤f≤100KHz	25℃		100	200	μV/Vo
Ripple Rejection	**Rr**	22V≤Vi≤33V, f=120Hz,Io=300mA	-25~+125	55	80		dB
Dropout Voltage	**Vd**	Io=350mA	25℃		2	2.5	V
Short Circuit Current	**Isc**	Vi=27V	25℃		300		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:

TO-252 PACKAGE OUTLINE DIMENSIONS



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	0.660	**0.860**	0.026	0.034
c	0.460	**0.580**	0.018	0.023
D	6.500	**6.700**	0.256	0.264
D1	5.100	**5.460**	0.201	0.215
D2	4.800 REF		0.189 REF	
E	6.000	**6.200**	0.236	0.244
e	2.186	**2.386**	0.086	0.094
L	9.800	**10.400**	0.386	0.409
L1	2.900 REF		0.114 REF	
L2	1.400	**1.700**	0.055	0.067
L3	4.00 REF		0.157 REF	
L4	0.600	**1.000**	0.024	0.039
φ	1.200	**1.400**	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	**0.300**	0.000	0.012
V	5.500 REF		0.217 REF	

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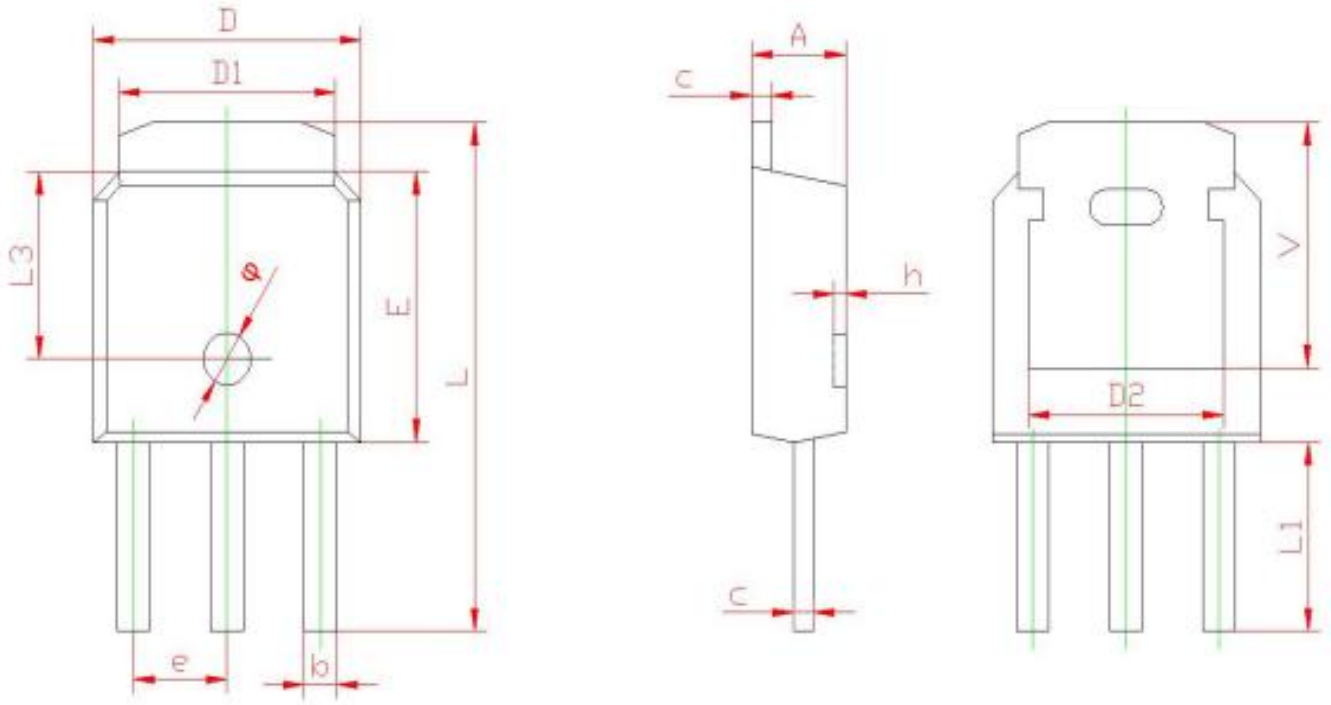
TO-251 PACKAGE OUTLINE DIMENSIONS



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c	0.460	**0.580**	0.018	0.023
D	6.500	**6.700**	0.256	0.264
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E	6.000	**6.200**	0.236	0.244
e	2.186	**2.386**	0.086	0.094
L	9.800	**10.400**	0.386	0.409
L1	4.300 REF		0.170 REF	
L3	4.00 REF		0.16 REF	
L4	0.600	**1.000**	0.024	0.039
h	0.000	**0.300**	0.000	0.012
V	5.500 REF		0.217 REF	