



**SHENZHEN MENGKE ELECTRONICS TECHNOLOGY CO.,LTD**  
**TO-252/TO-251 Plastic-Encapsulate Voltage Regulators**

# MK78M15 Three-terminal positive voltage regulator

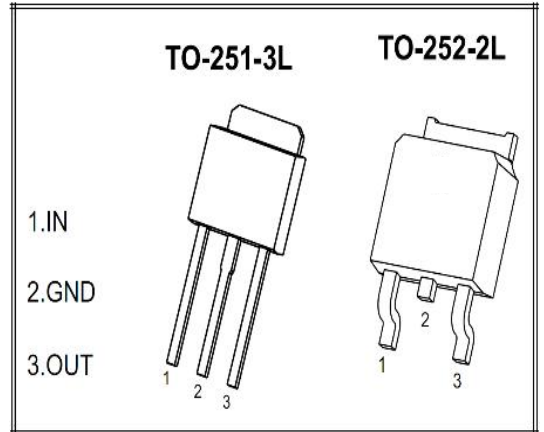
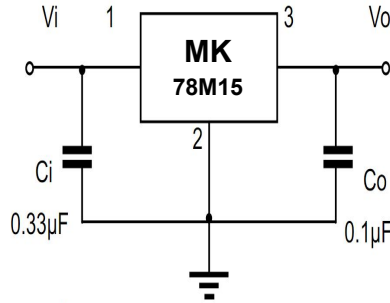
**FEATURES:**

- ※ Maximum output current  
**IOM: 1A**
- ※ Output voltage  
**VO: 15V**
- ※ Continuous total dissipation  
**PD: 1.25W**

**MARKING:**

**MK 78M15 MK \*\*\*\***  
 MK→logo \*\*\*\*→Date

**TYPICAL APPLICATION:**



**Absolute Maximum ratings (Operating temperature range applies unless otherwise specified)**

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

**Electrical Characteristics At Specified Virtual Junction Temperature**  
**(Vi=23V, Io=350mA, Ci=0.33µF, Co=0.1µF. Unless Otherwise Specified)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Output voltage	<b>VO</b>	25°C	14.4	15	15.6	V
		17.5V≤Vi≤30V, Io=5mA-350mA	-25~+125	14.25	15	15.75
Load Regulation	<b>ΔVO</b>	Io=5mA-0.5A, Vi=23V	25°C	30	300	mV
		Io=5mA-200mA, Vi=23V	25°C	15	150	mV
Line Regulation	<b>ΔVO</b>	17.5V≤Vi≤30V, Io=200mA	25°C	12	100	mV
		20V≤Vi≤30V, Io=200mA	25°C	5	50	mV
Quiescent Current	<b>Iq</b>	25°C		4.8	6	mA
Quiescent Current Change	<b>ΔIq</b>	17.5V≤Vi≤30V, Io=200mA	-25~+125		0.8	mA
	<b>ΔIq</b>	5mA≤Io≤350mA, Vi=23V	-25~+125		0.5	mA
Output Noise Voltage	<b>VN</b>	10Hz≤f≤100KHz	25°C	90	200	µV/Vo
Ripple Rejection	<b>Rr</b>	18.5V≤Vi≤28.5V, f=120Hz, Io=300mA	-25~+125	55	80	dB
Dropout Voltage	<b>Vd</b>	Io=350mA	25°C	2	2.5	V
Short Circuit Current	<b>Isc</b>	Vi=23V	25°C	300		mA
Peak Current	<b>IPK</b>	25°C		0.7		A

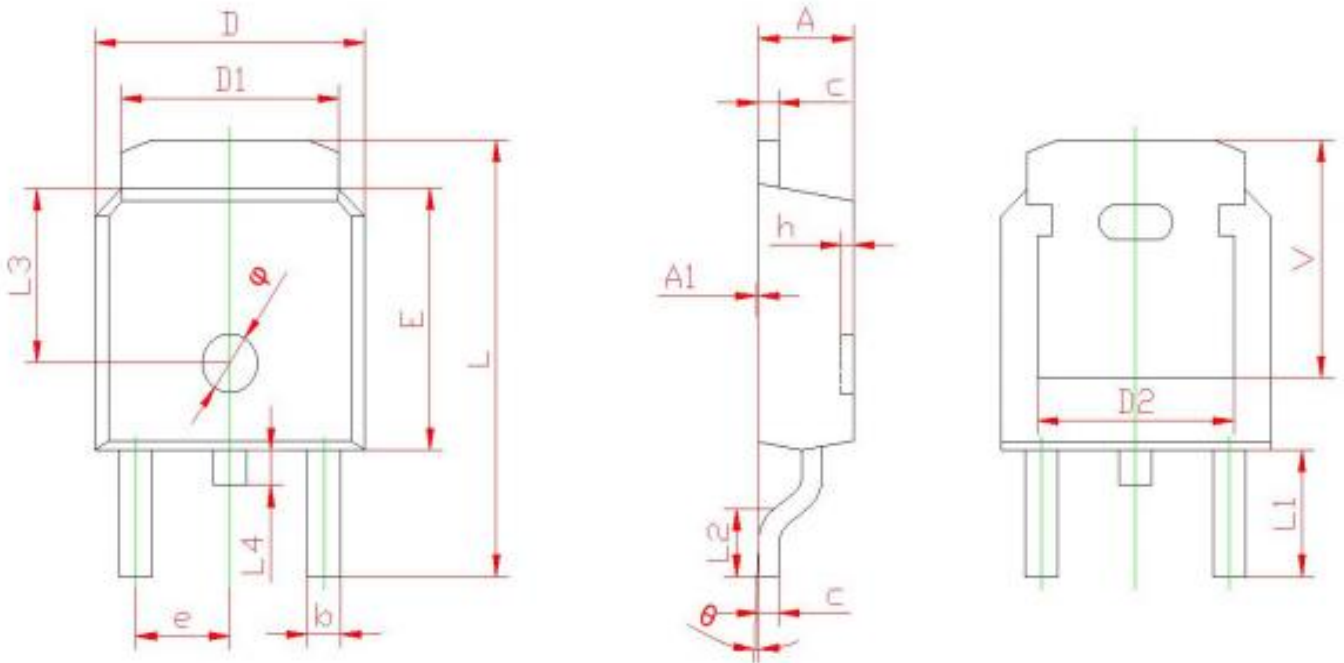
Note :

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



Package Dimensions:

**TO-252 PACKAGE OUTLINE DIMENSIONS**

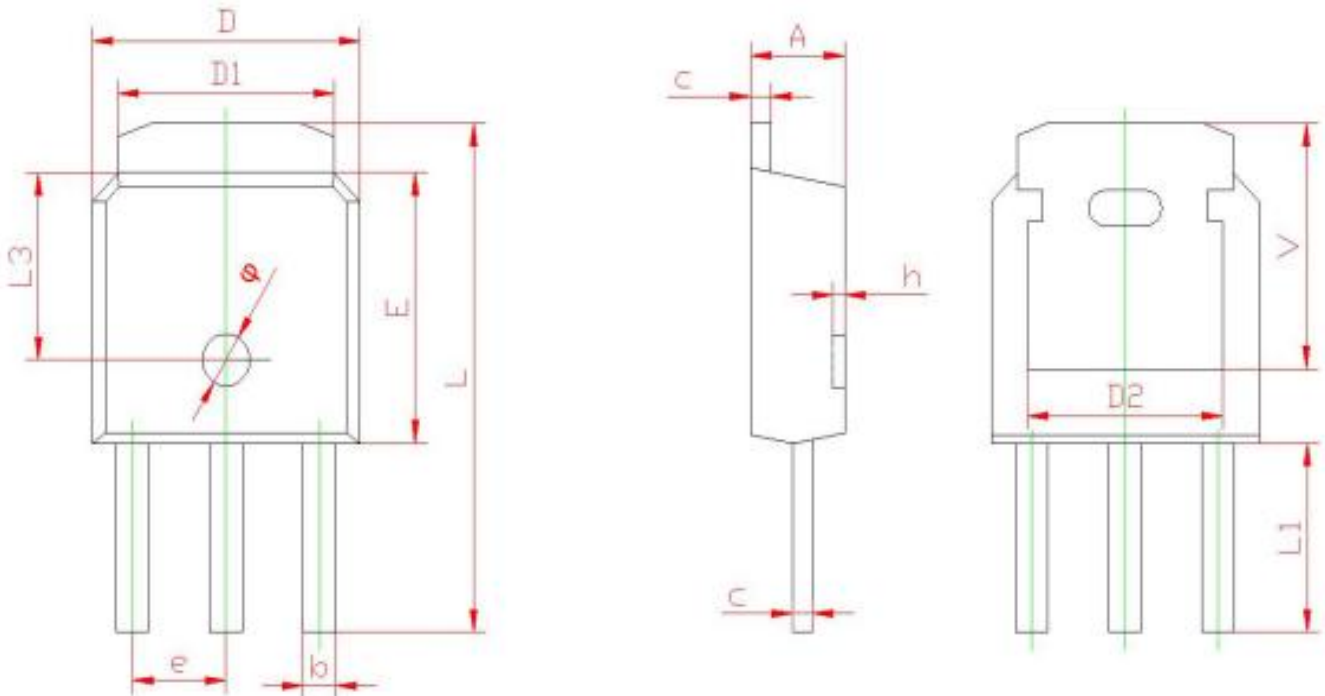


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	<b>2.400</b>	0.087	0.094
A1	0.000	<b>0.127</b>	0.000	0.005
b	0.660	<b>0.860</b>	0.026	0.034
c	0.460	<b>0.580</b>	0.018	0.023
D	6.500	<b>6.700</b>	0.256	0.264
D1	5.100	<b>5.460</b>	0.201	0.215
D2	4.800 REF		0.189 REF	
E	6.000	<b>6.200</b>	0.236	0.244
e	2.186	<b>2.386</b>	0.086	0.094
L	9.800	<b>10.400</b>	0.386	0.409
L1	2.900 REF		0.114 REF	
L2	1.400	<b>1.700</b>	0.055	0.067
L3	4.00 REF		0.157 REF	
L4	0.600	<b>1.000</b>	0.024	0.039
φ	<b>1.200</b>	<b>1.400</b>	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	<b>0.300</b>	0.000	0.012
V	5.500 REF		0.217 REF	



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**TO-251 PACKAGE OUTLINE DIMENSIONS**



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	Min.	Max.	Min.	Max.
A	2.200	<b>2.400</b>	0.087	0.094
A1	0.000	<b>0.127</b>	0.000	0.005
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c	0.460	<b>0.580</b>	0.018	0.023
D	6.500	<b>6.700</b>	0.256	0.264
D1	5.100	<b>5.460</b>	0.201	0.215
D2	4.800 REF		0.189 REF	
E	6.000	<b>6.200</b>	0.236	0.244
e	2.186	<b>2.386</b>	0.086	0.094
L	9.800	<b>10.400</b>	0.386	0.409
L1	4.300 REF		0.170 REF	
L3	4.00 REF		0.16 REF	
L4	0.600	<b>1.000</b>	0.024	0.039
h	0.000	<b>0.300</b>	0.000	0.012
V	5.500 REF		0.217 REF	