



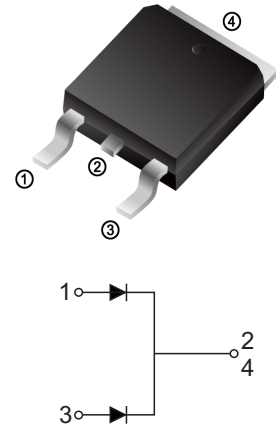
# MBR1045LDT

## Surface Mount Schottky Rectifiers

### FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

### TO-252(D-PAK)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	TO-252	MBR1045LDT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	31.5	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	45	V
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	10.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	100	A
Maximum Forward Voltage at 5.0A DC per leg	V <sub>F</sub>	0.56	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1 20	mA
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	600	pF
Typical Thermal Resistance (Note2)	R <sub>θJA</sub>	45	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Mounted on 10cm x 10cm x 1mm copper pad area



**Characteristic Curves** ( $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

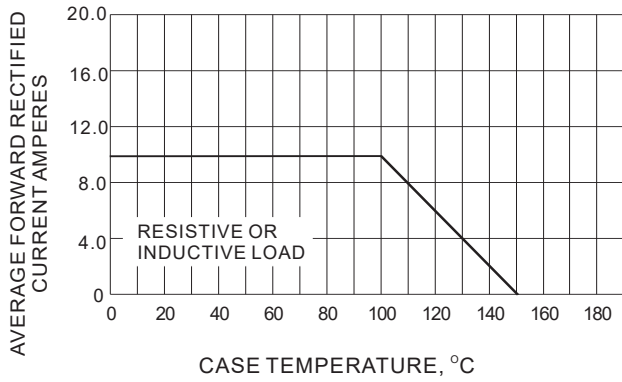


FIG.2-TYPICAL FORWARD CHARACTERISTICS

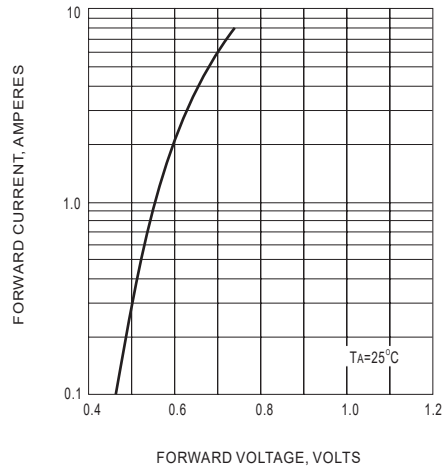


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

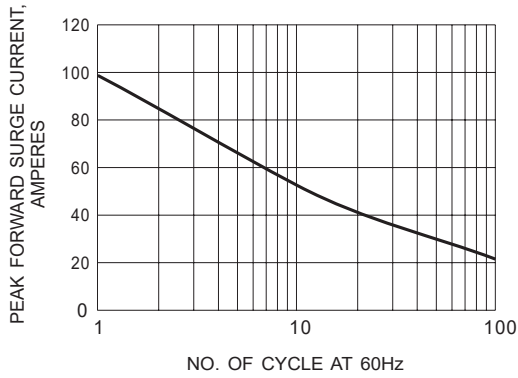
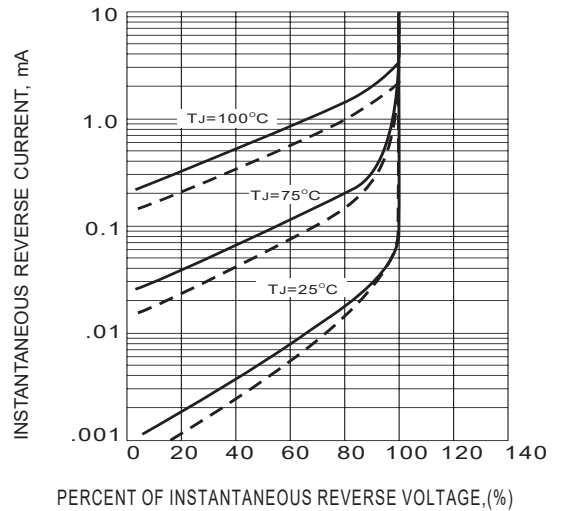


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

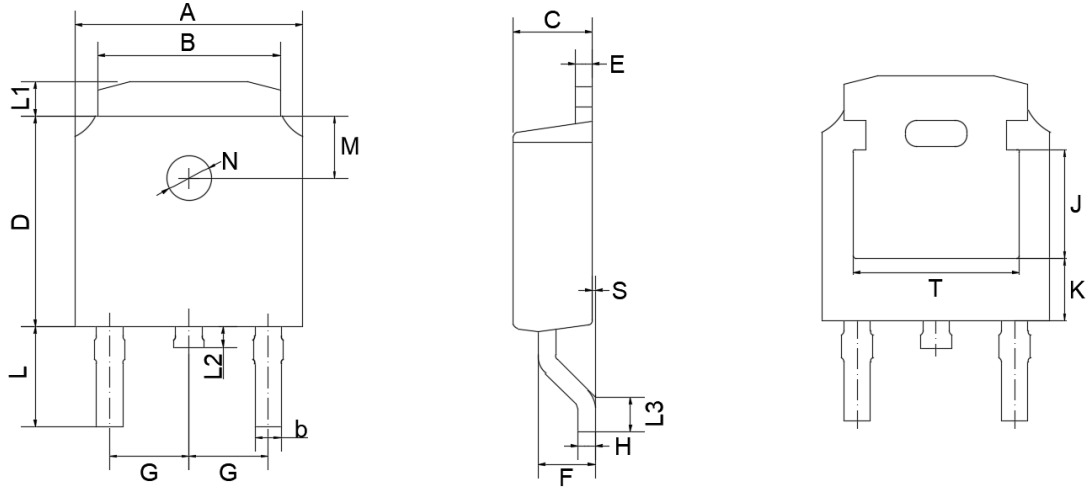




# MBR1045LDT

## Surface Mount Schottky Rectifiers

### TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

UNIT	A	B	b	C	D	E	F	G	H	L	L1	L2	L3	S	M	N	J	K	T	
mm	max	6.7	5.5	0.86	2.5	6.3	0.6	1.8	2.29 TYPICAL	0.55	3.1	1.2	1.0	1.75	0.1	1.8 TYPICAL	1.3 TYPICAL	3.16 ref.	1.80 ref.	4.83 ref.
	min	6.3	5.1	0.66	2.1	5.9	0.4	1.3		0.45	2.7	0.8	0.6	1.40	0.0					
mil	max	264	217	33	98	248	24	71	90 TYPICAL	22	122	47	39	69	4	71 TYPICAL	51 TYPICAL	124 ref.	71 ref.	190 ref.
	min	248	201	26	83	232	16	51		18	106	31	24	55	0					

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