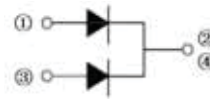


## SCHOTTKY BARRIER RECTIFIERS

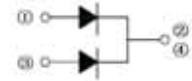
### FEATURES

- High Performance and Reliability best suited for Automotive application
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

### TO-251(I-PAK)



### TO-252(D-PAK)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	TO-251	MBR1040VT	MBR1045VT	MBR1060VT	MBR10100VT	MBR10150VT	MBR10200VT	UNIT
	TO-252	MBR1040DT	MBR1045DT	MBR1060DT	MBR10100DT	MBR10150DT	MBR10200DT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	42	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	60	100	150	200	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>	0.60		0.70	0.85	0.90	0.92	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1 20			0.05 20			mA
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	600		400				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

## SCHOTTKY BARRIER RECTIFIERS

### RATINGS AND CHARACTERISTIC CURVES MBR1040xT - MBR10200xT

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

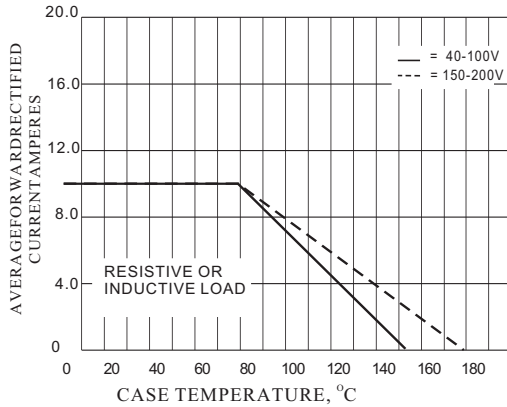


FIG.2-TYPICAL FORWARD CHARACTERISTICS

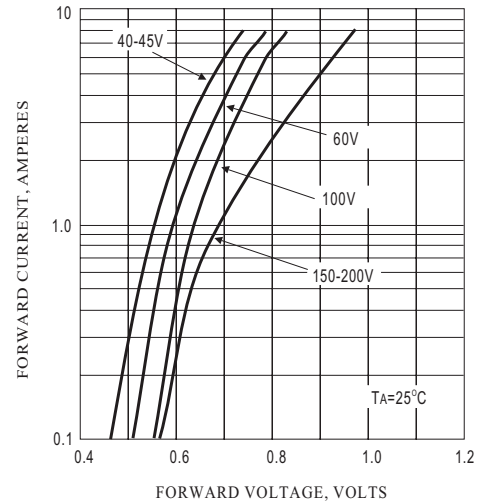


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

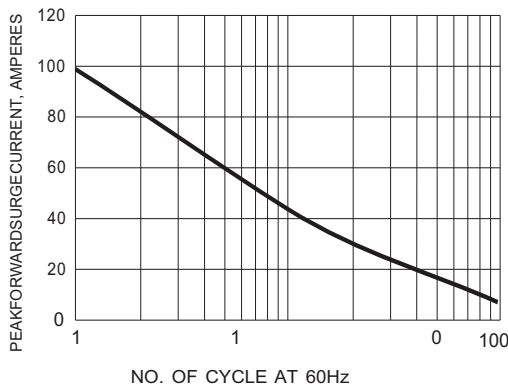
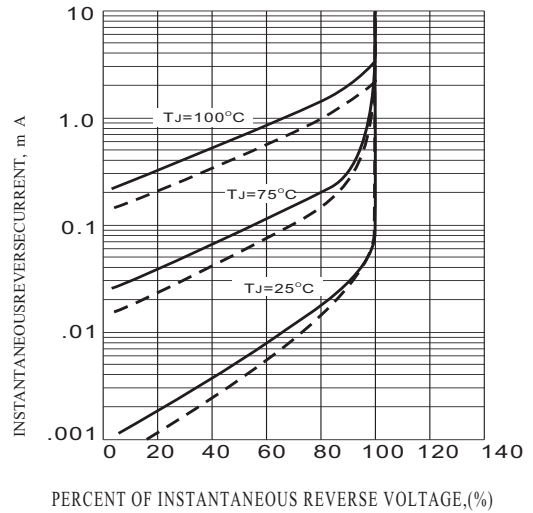
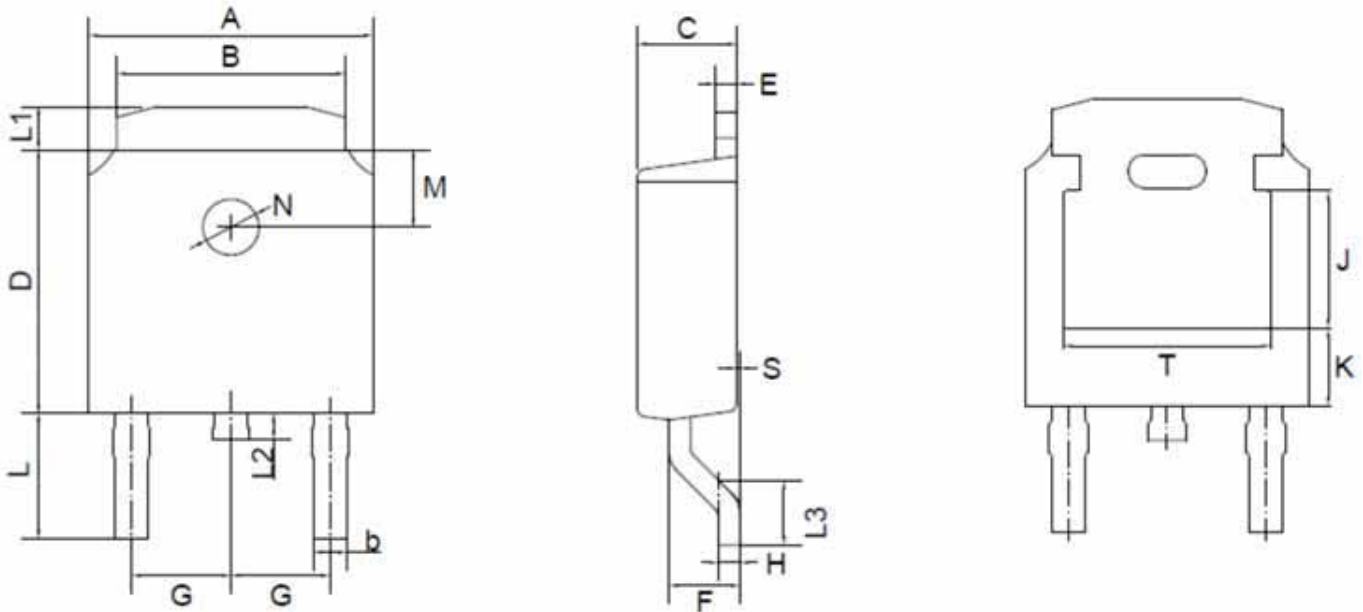


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



## SCHOTTKY BARRIER RECTIFIERS

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

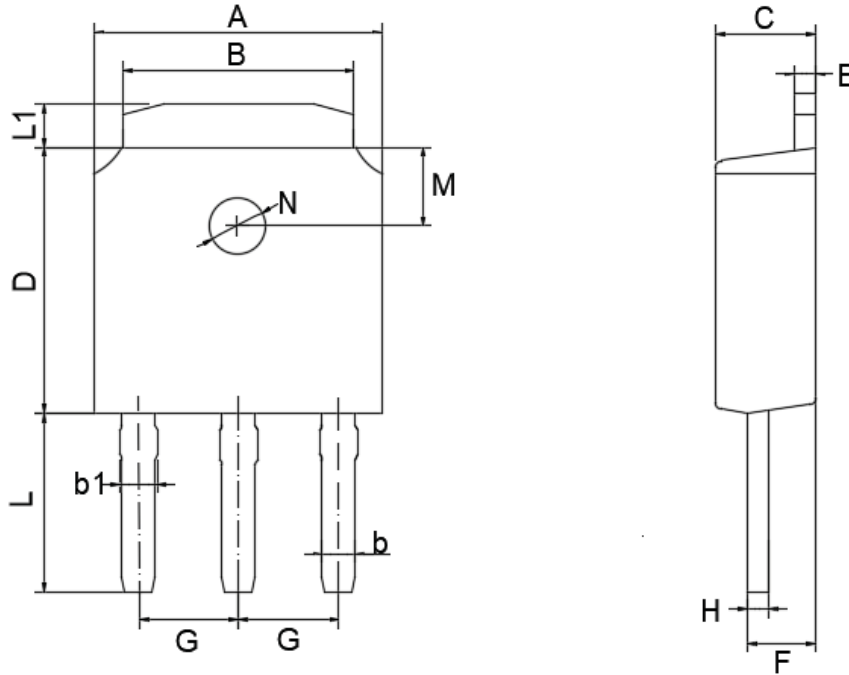


TO-252(D-PAK) mechanical data

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	0.8	2.5	6.3	0.6	1.8	2.29	0.55	3.1	1.2	1.0	1.75	0.1	1.8	1.3	3.16	1.80	4.83
	min	6.3	5.1	0.3	2.1	5.9	0.4	1.3		TYPICAL	0.45	2.7	0.8	0.6						
mil	max	264	217	31	98	248	24	71	90	22	122	47	39	69	4	71	51	124	71	190
	min	248	201	12	83	232	16	51		TYPICAL	18	106	31	24						

## SCHOTTKY BARRIER RECTIFIERS

### TO-251(I-PAK) Package Outline Dimensions



TO-251(I-PAK) mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	6.70	5.50	0.80	0.90	2.50	6.30	0.60	1.80	2.29 TYPICAL	0.55	4.30	1.20	1.8 TYPICAL	1.3 TYPICAL
	min	6.30	5.10	0.30	0.76	2.10	5.90	0.40	1.30		0.45	3.90	0.80		
mil	max	264	217	31	35	98	248	24	71	90 TYPICAL	22	169	47	71 TYPICAL	51 TYPICAL
	min	248	201	12	30	83	232	16	51		18	154	31		

### Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise