

VOLTAGE RANGE: 40 - 200V

CURRENT: 20 A

Features

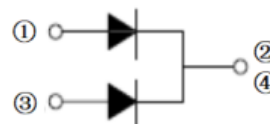
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any
- Weight: 2.24 grams



TO-252(D-PAK)



Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

CHARACTERISTICS	SYMBOL	MBRD2040	MBRD2045	MBRD2060	MBRD20100	MBRD20150	MBRD20200	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	40	45	60	100	150	200	V
Maximum RMS Voltage	VRMS	28	31.5	42	70	105	140	V
Maximum DC Blocking Voltage	VDC	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current	I(AV)	20.0						A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	IFSM	120						A
Maximum Forward Voltage at 10.0A DC per leg	VF	0.60		0.70	0.85	0.90	0.92	V
Maximum DC Reverse Current J=25℃ at Rated DC Blocking Voltage J=125℃	IR	0.1 20						mA
Typical Junction Capacitance Per Element (Note1)	CJ	600		400				pF
Typical Thermal Resistance (Note2)	RθJA	45						℃/W
Operating Temperature Range	TJ	-55 to +150						℃
Storage Temperature Range	TSTG	-55 to +150						℃

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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

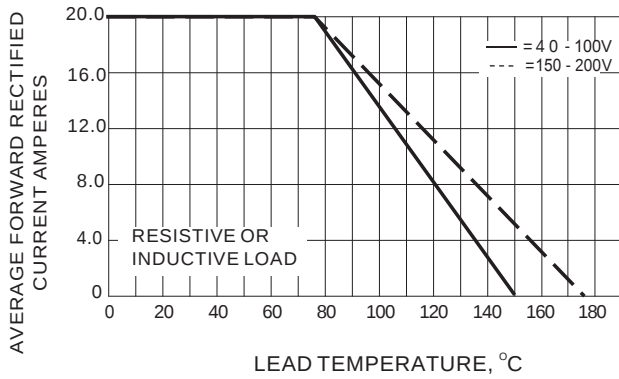


FIG.2-TYPICAL FORWARD CHARACTERISTICS

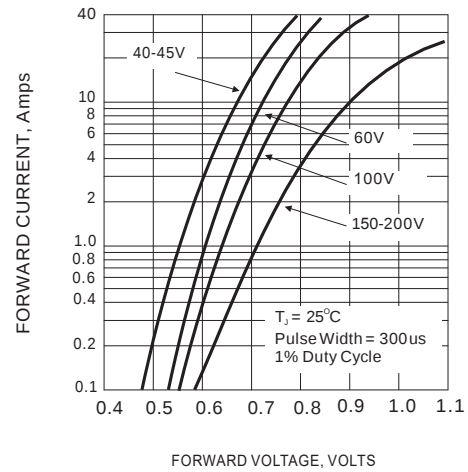


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

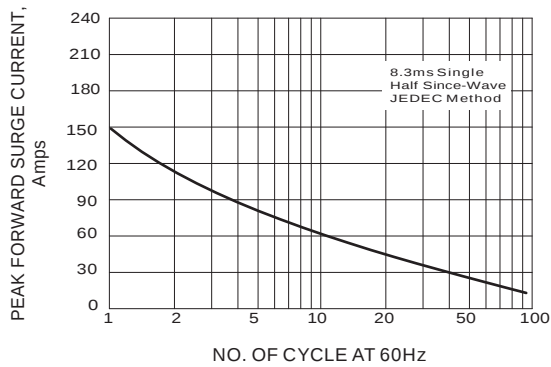
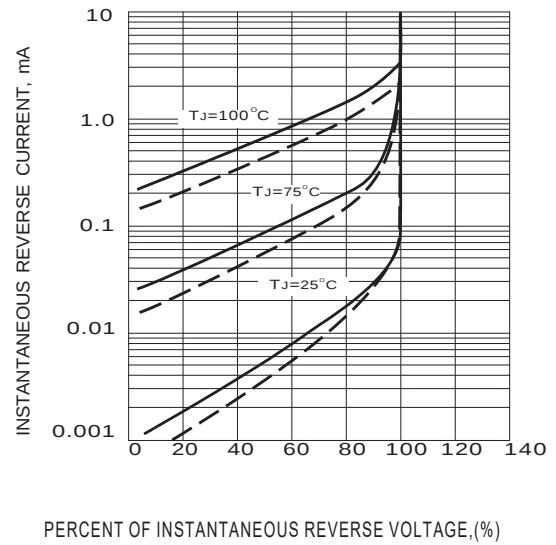
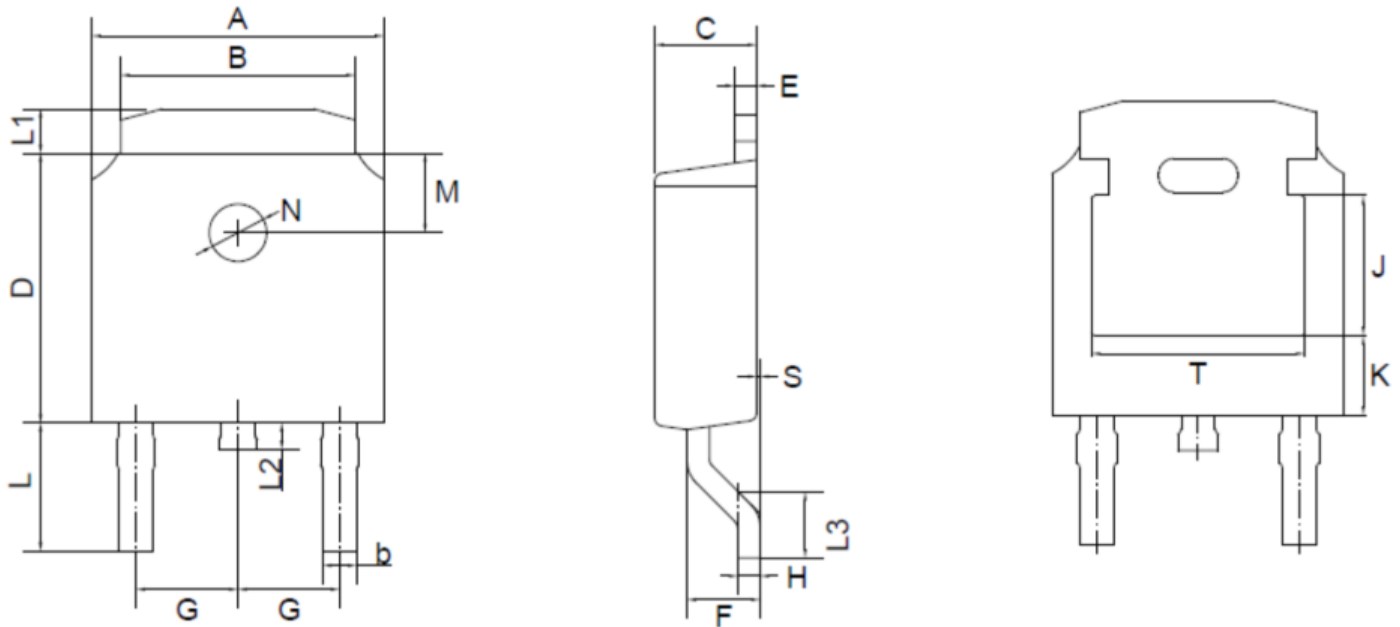


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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	1.40	0.0	TYPICAL	TYPICAL	ref.	ref.	ref.
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	55	0	TYPICAL	TYPICAL	ref.	ref.	ref.