DESCRIPTION

The MBR1040_10200 is available in TO-220-2 Package.

V_{RRM}	I_{FSM}	V_F
40V~200V	150A	0.55V
		0.70V
		0.85V
		0.95V

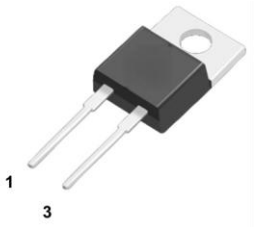
FEATURE

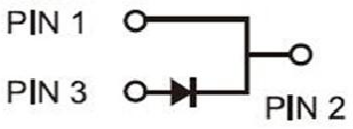
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: Molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body
- Mounting Position: Any

PIN DESCRIPTION





ORDERING INFORMATION

Package Type	Part Number
TO-220-2	MBR1040
	MBR1045
	MBR1060
	MBR10100
	MBR10150
	MBR10200
Note	SPQ: 50pcs/Tube 1,000pcs/Box
AiT provides all RoHS Compliant Products	

ABSOLUTE MAXIMUM RATINGS

T_A=25℃, unless otherwise specified

Parameter	Symbol	MBR1040	MBR1045	MBR1060	MBR10100	MBR10150	MBR10200	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Working Peak Reverse Voltage	V_{RW}	28	31.5	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	100	150	200	V
Maximum average forward rectified current at T_C=110°C	$I_{(AV)}$	10						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150						A
Operating Temperature Range	T_J	-55 ~ + 150						℃
Storage Temperature Range	T_{STG}	-55 ~ + 150						℃
Typical Thermal Capacitance	$R_{\theta JC}$	3.5						℃/W

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise specified

Parameter		Symbol	MBR1040	MBR1045	MBR1060	MBR10100	MBR10150	MBR10200	Unit
Maximum Instantaneous Forward Voltage per diode at 10.0A		V_F	0.55	0.55	0.70	0.85	0.95	0.95	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25℃	I_R	0.50	0.50	0.50	0.05	0.05	0.05	mA
	T_A=100℃		50	50	50	10	10	10	

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Derating Curve Output Rectified Current

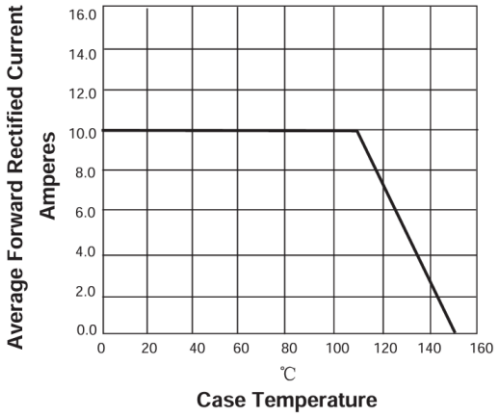


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

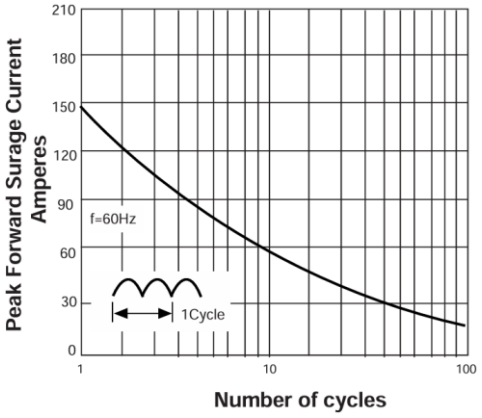


Fig 3. Typical Forward Voltage Characteristics

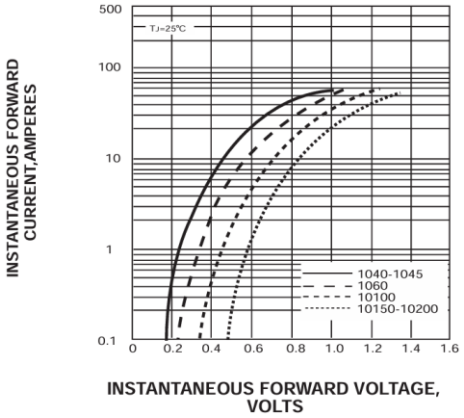
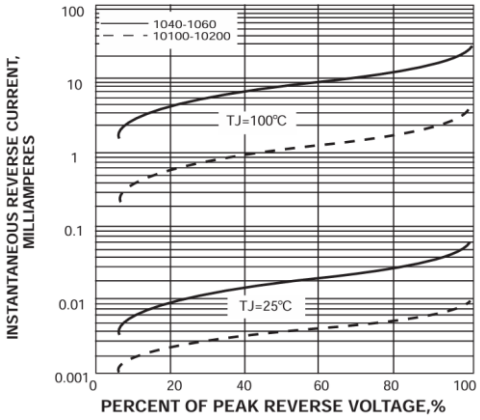
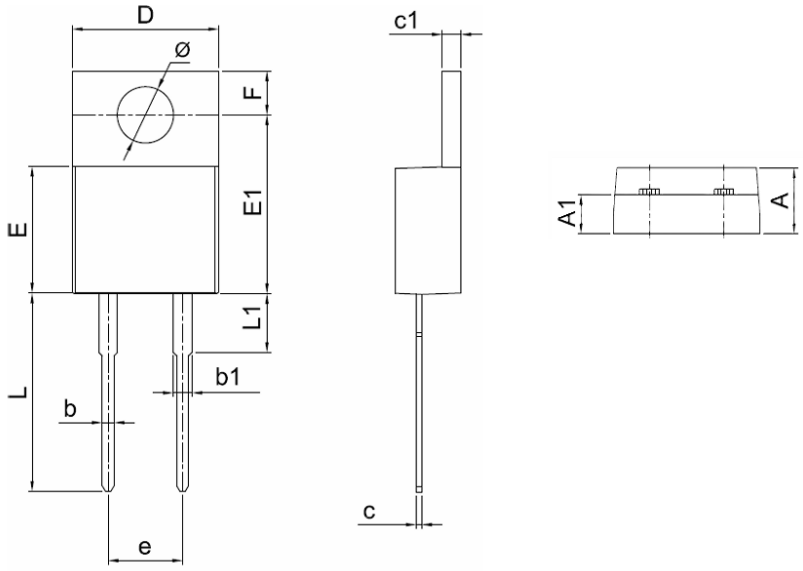


Fig 4. Typical Reverse Leakage Characteristics



PACKAGE INFORMATION

Dimension in TO-220-2 Package



SYMBOL	MILLIMETERS	
	Min.	Max.
A	4.340	4.670
A1	2.520	2.820
b	0.710	0.910
b1	1.170	1.370
c	0.300	0.500
c1	1.170	1.370
D	9.900	10.200
E	8.500	8.900
E1	12.000	12.500
e	2.440	2.640
e1	4.880	5.280
F	2.600	2.800
L	13.200	13.800
L1	3.800	4.200
Φ	3.600	3.960

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