

■ **FEATURES**

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

■ **TYPICAL APPLICATIONS**

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

■ **MECHANICAL DATA**

- **Package:** TO-263
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■ **MAXIMUM RATINGS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRB20100CT	MBRB20150CT	MBRB20200CT
Device marking code			MBRB20100CT	MBRB20150CT	MBRB20200CT
Repetitive Peak Reverse Voltage	VRRM	V	100	150	200
Average Rectified Output Current @60Hz sine wave, R-load, T _a =25°C	I _O	A		20	
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A		150	
Current Squared Time @1ms≤t<8.3ms T _j =25°C,	I ² t	A ² s		94	
Storage Temperature	T _{stg}	°C		-55 ~ +175	
Junction Temperature	T _j	°C		-55 ~ +175	

■ **ELECTRICAL CHARACTERISTICS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRB20100CT	MBRB20150CT	MBRB20200CT
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =10.0A	0.8	0.85	0.9
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.1		
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	20		

■ **THERMAL CHARACTERISTICS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRB20100CT	MBRB20150CT	MBRB20200CT
Thermal Resistance Between junction and case	R _{θj-c}	°CW	2.0		

PACKAGING INFORMATION

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBRB20100CT THRU MBRB20200CT	Approximate 1.43	50	2000	8000	Tube
MBRB20100CT THRU MBRB20200CT	Approximate 1.43	1000	2000	10000	Reel

CHARACTERISTICS (TYPICAL)

FIG1: I_o -Tc Curve

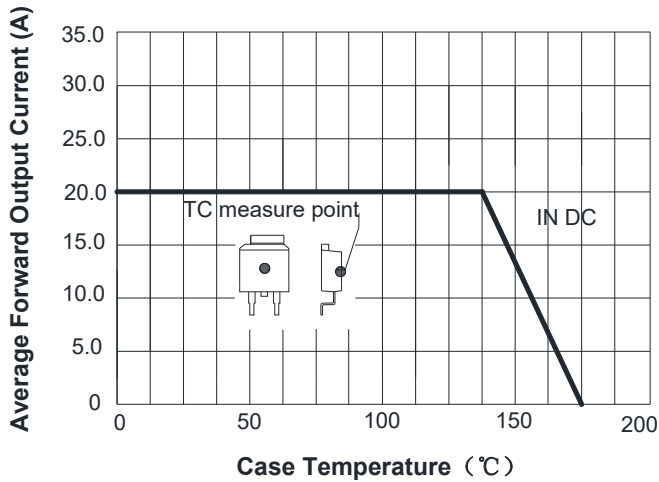


FIG2: Surge Forward Current Capability

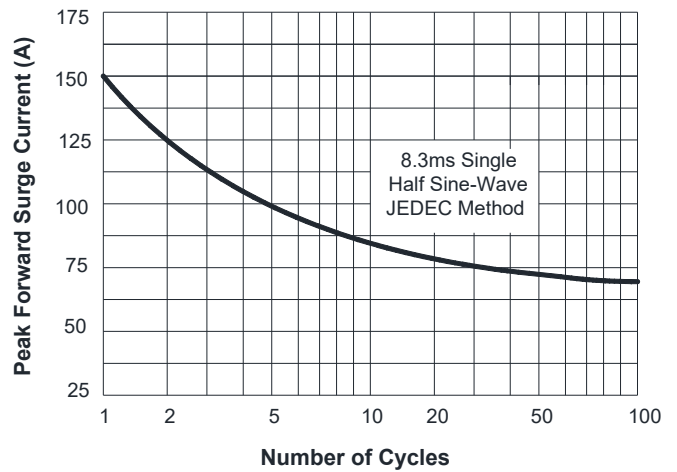


FIG3: Forward Voltage

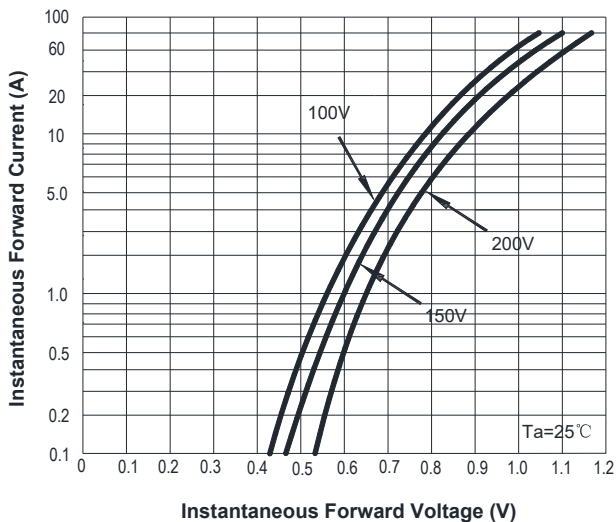
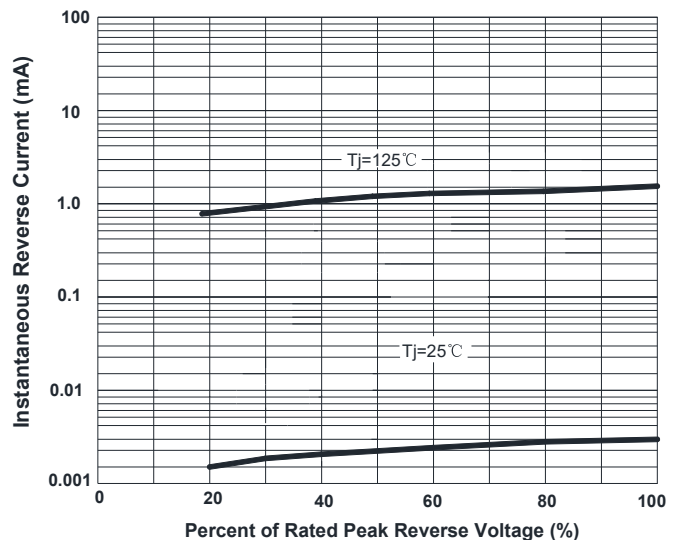
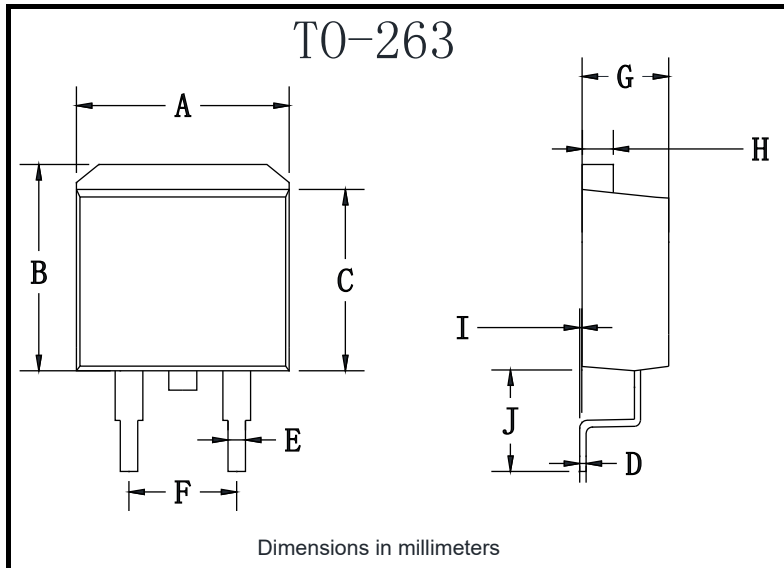


FIG4: Instantaneous Reverse Characteristics



■ **OUTLINE DIMENSIONS**



TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05