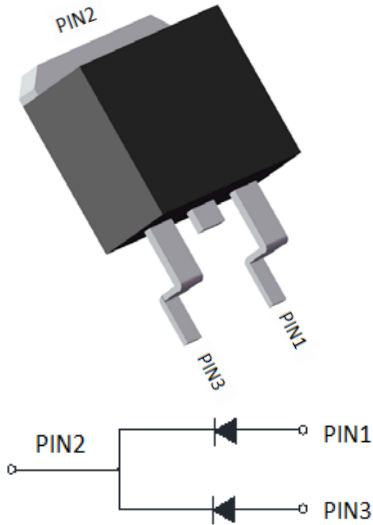


Schottky Diodes



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	MBRB20100CTS	MBRB20150CTS	MBRB20200CTS
Device marking code			MBRB20100CTS	MBRB20150CTS	MBRB20200CTS
Repetitive Peak Reverse Voltage	V _{RRM}	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	130		
Current Squared Time @1ms≤t≤8.3ms T _j =25°C.	I ² t	A ² s	70		
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	MBRB20100CTS	MBRB20150CTS	MBRB20200CTS
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =10.0A	0.85	0.9	0.95
Maximum DC reverse current at rated DC blocking voltage per diode	I _{R1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.1		
	I _{R2}		V _{RM} =V _{RRM} T _a =125°C	20		

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRB20100CTS	MBRB20150CTS	MBRB20200CTS
Thermal Resistance Between junction and case	R _{θj-c}	°C/W	2.0		



MBRB20100CTS THRU MBRB20200CTS

Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBRB20100CTS THRU MBRB20200CTS	Approximate 1.43	50	2000	8000	Tube
MBRB20100CTS THRU MBRB20200CTS	Approximate 1.43	1000	2000	10000	Reel

Characteristics (Typical)

FIG1:Io -Tc Curve

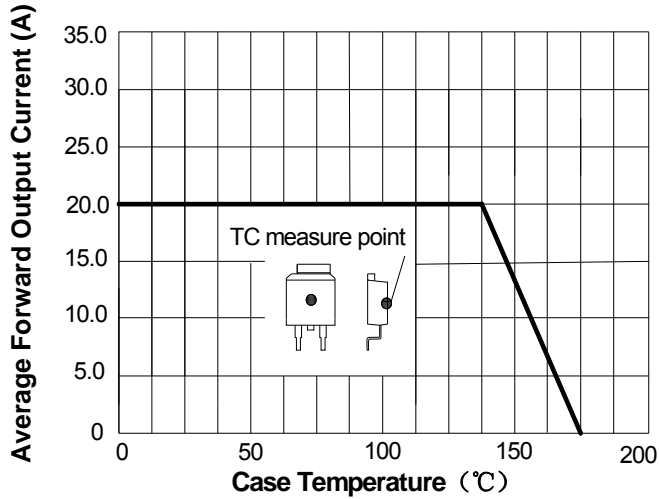


FIG2:Surge Forward Current Capability

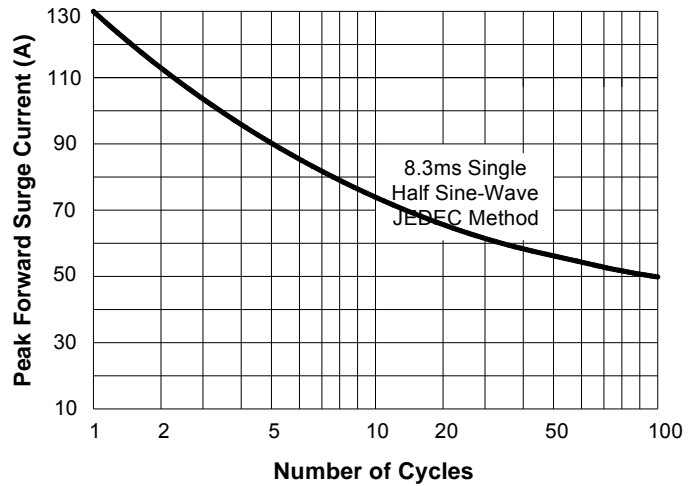


FIG3: Forward Voltage

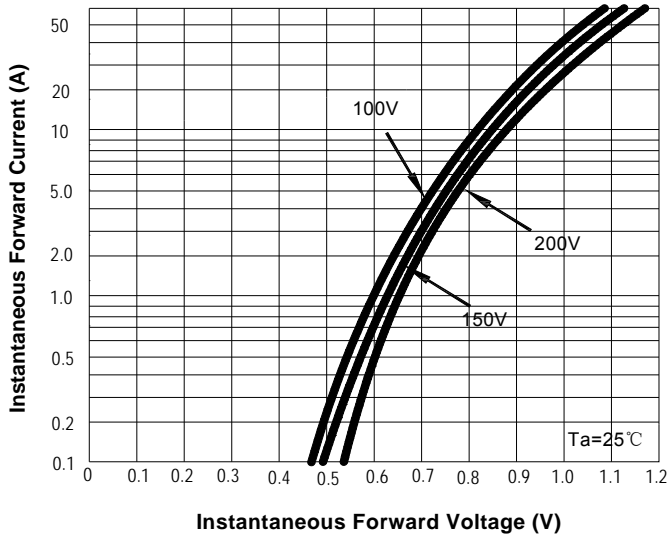
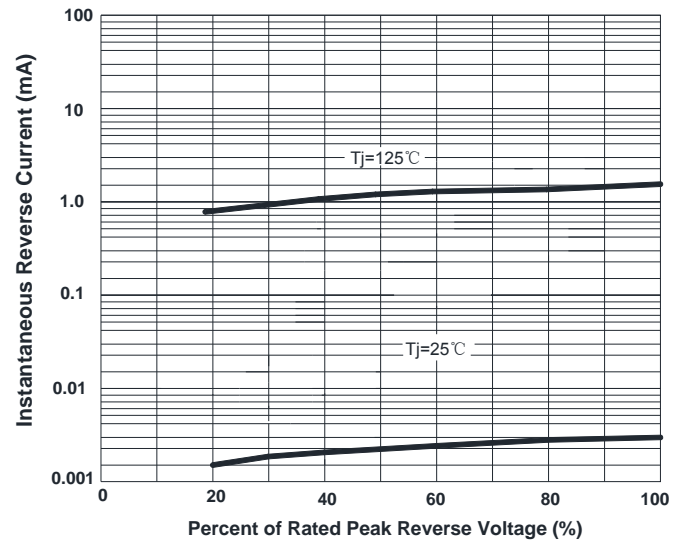


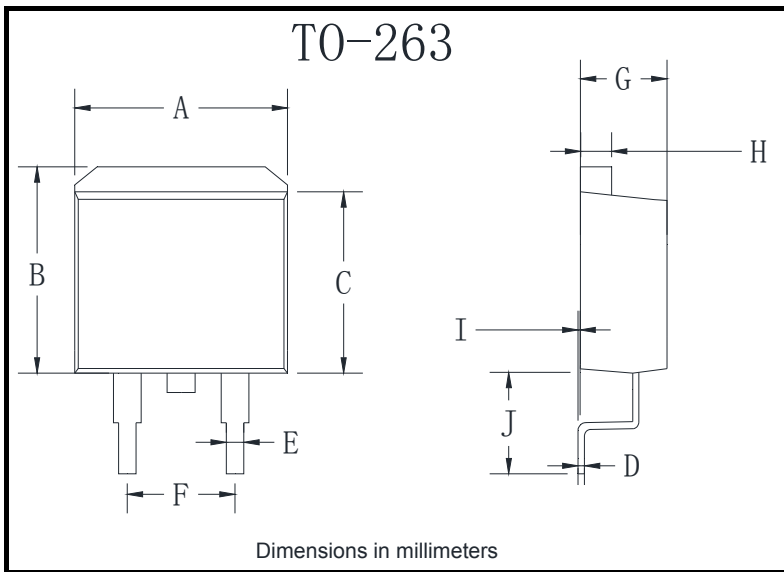
FIG4: Instantaneous Reverse Characteristics





MBRB20100CTS THRU MBRB20200CTS

■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



MBRB20100CTS THRU MBRB20200CTS

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