

Schottky Diodes

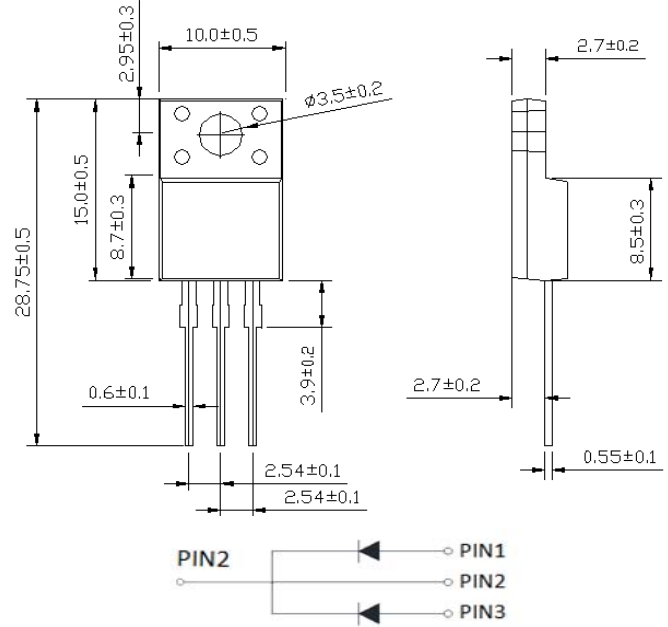
Features

- 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
- Solder dip 260 °C max. 8 s, per JESD 22-B106

Mechanical Data

- **Package:** TO-220F
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

TO-220F



Dimensions in millimeters (1mm =0.0394")

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRF20100CT	MBRF20150CT	MBRF20200CT
Device marking code			MBRF20100CT	MBRF20150CT	MBRF20200CT
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	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 ~ +150		

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRF20100CT	MBRF20150CT	MBRF20200CT
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	0.05	
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	20		
Thermal Resistance	R _{θJ-C}	°C/W	Between junction and case	2.0		

Rating and Characteristic Curves ($T_A=25^\circ\text{C}$ Unless otherwise noted)

FIG1: I_o - T_c Curve

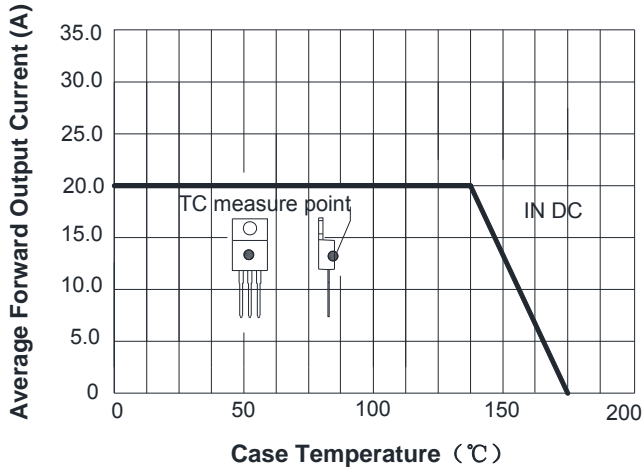


FIG2: Surge Forward Current Capability

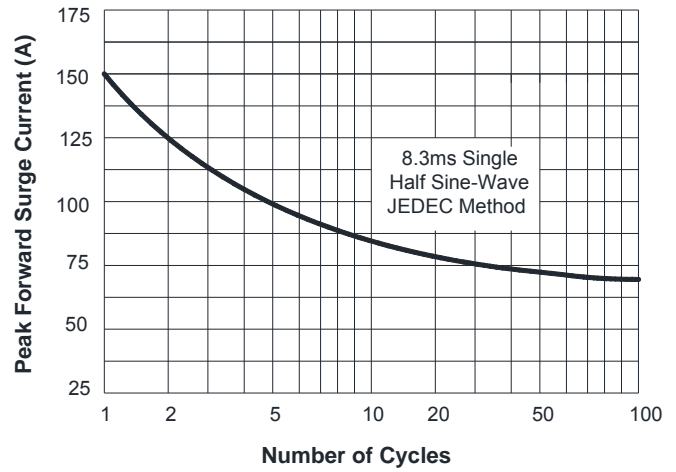


FIG3: Forward Voltage

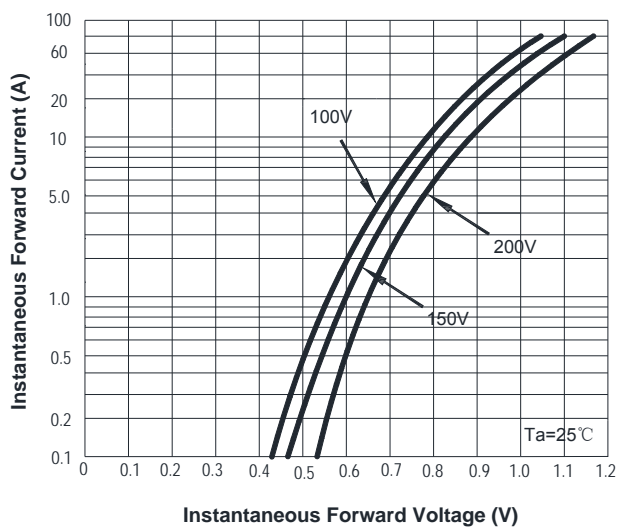


FIG4: Instantaneous Reverse Characteristics

