

Features

- High Junction Temperature Capability
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"
- Low Leakage Current
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: type number

Maximum Ratings

- Operating Junction Temperature : 150°C
- Storage Temperature: - 50°C to +150°C
- Per diode Thermal Resistance 2.2°C/W Junction to Case
- Total Thermal Resistance 1.3°C/W Junction to Case

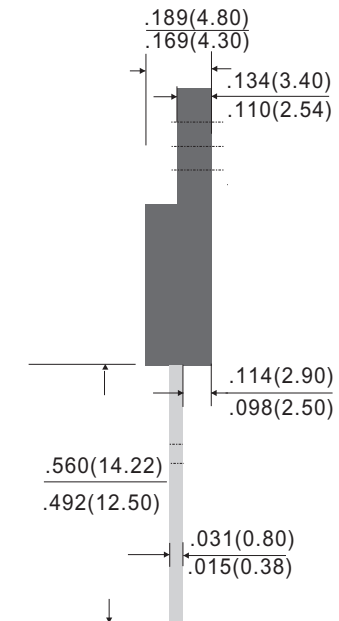
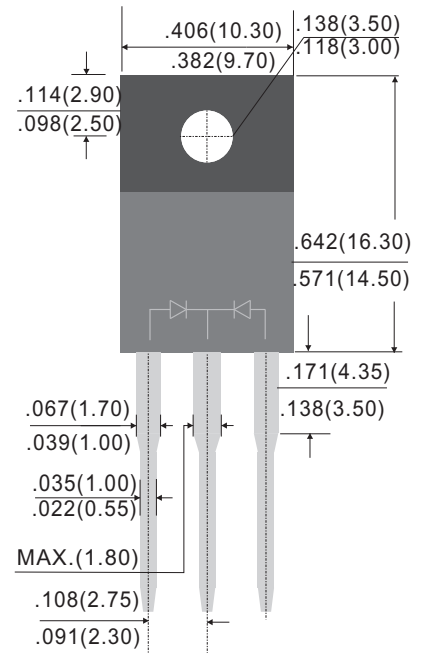
Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR 20150 FCT	150 V	105V	150 V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	20 A	$T_C = 155^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	180A	8.3ms, half sine wave
Maximum Instantaneous Forward Voltage MBR20150FCT	V_F	.92V	$I_{FM} = 10A$ $T_J = 25^\circ\text{C}$
	V_F	.75V	$I_{FM} = 10A$ $T_J = 125^\circ\text{C}$
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	25 μ A	$T_J = 25^\circ\text{C}$
		5m A	$T_J = 125^\circ\text{C}$

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

ITO-220



Dimensions in inches and (millimeters)

Fig. 1: Average forward power dissipation versus average forward current (per diode).

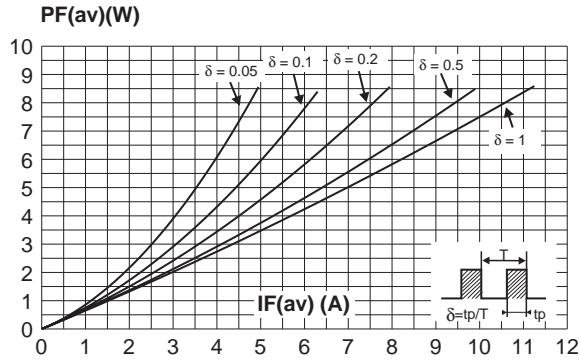


Fig. 3: Non repetitive surge peak forward current versus overload duration (maximum values, per diode).

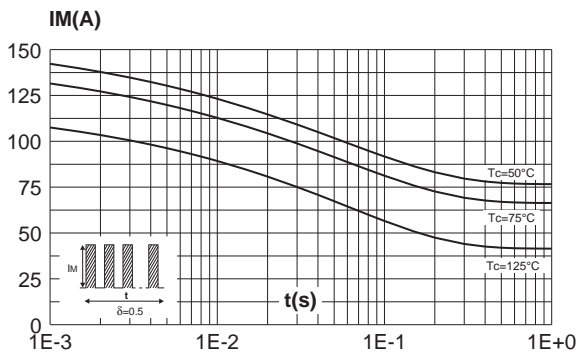


Fig. 5: Reverse leakage current versus reverse voltage applied (typical values, per diode).

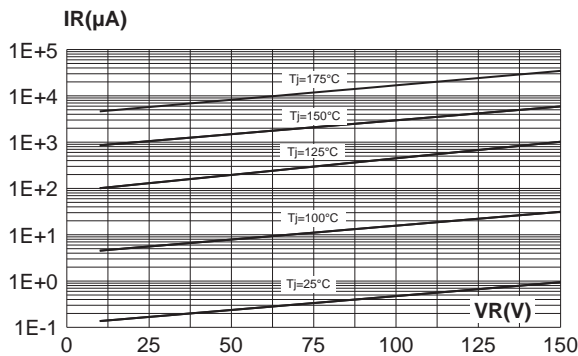


Fig. 2: Average forward current versus ambient temperature ($\delta = 0.5$, per diode).

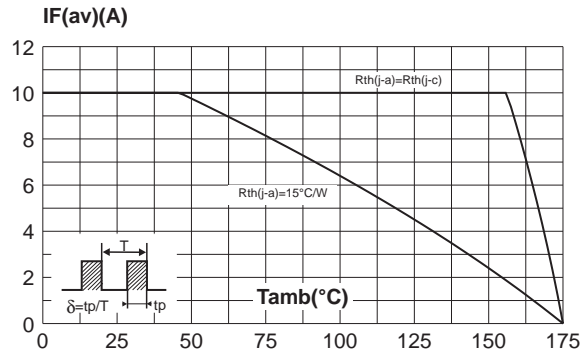


Fig. 4: Relative variation of thermal impedance junction to case versus pulse duration (per diode).

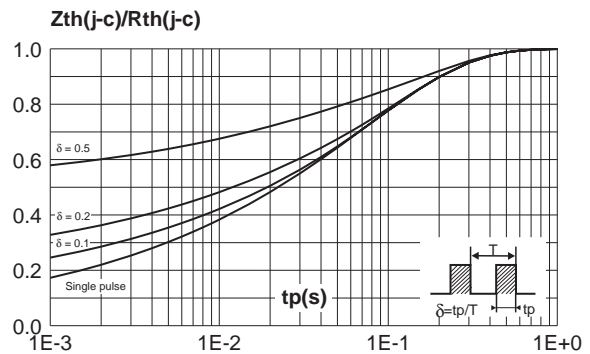


Fig. 6: Junction capacitance versus reverse voltage applied (typical values, per diode).

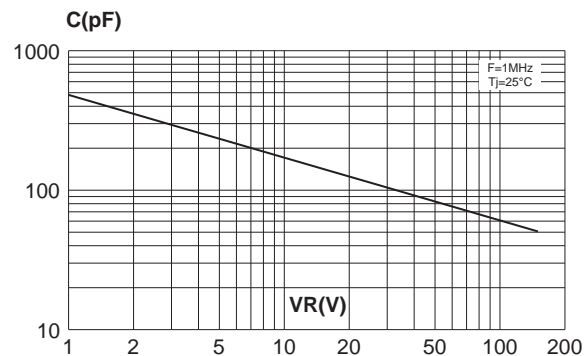


Fig. 7: Forward voltage drop versus forward current (maximum values, per diode).

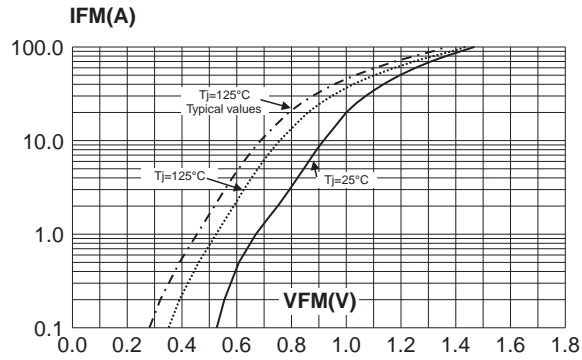


Fig. 8: Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board, copper thickness: $35\mu\text{m}$) (STPS20150CG only).

