



Micro Commercial Components

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MBR20150CT

Features

- High Junction Temperature Capability
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Low Leakage Current
- Marking : type number

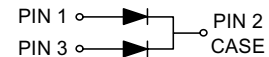
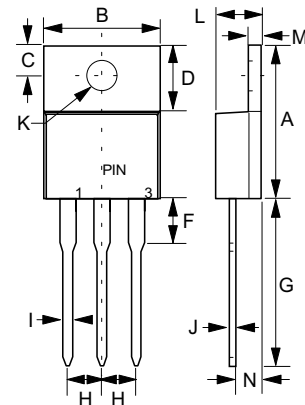
**20 Amp High Voltage
 Power Schottky
 Barrier Rectifier
 150Volts**

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

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

TO-220AB



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 MBR20150CT	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 5m A	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	
L	.140	.190	3.56	4.83	∅
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

*Pulse Test: Pulse Width 380 μ sec, Duty Cycle 2%

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MBR20150CT

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

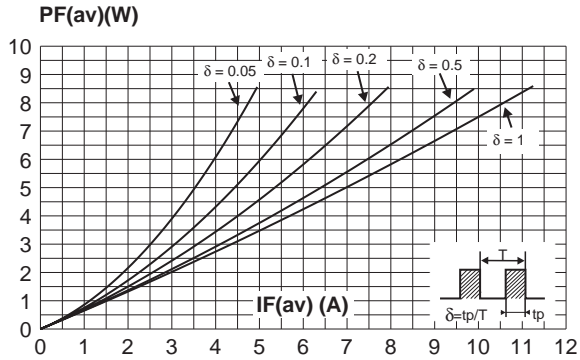


Fig. 3: Non repetitive surge peak forward current versus overload duration (maximum values, per diode).

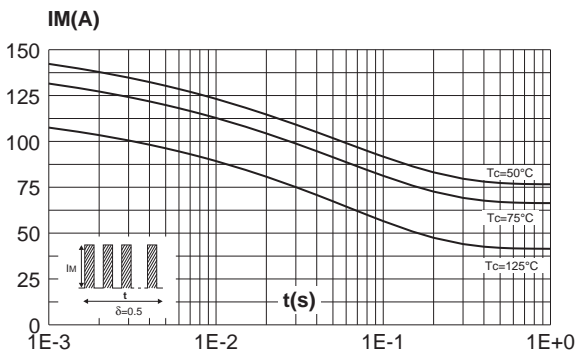


Fig. 5: Reverse leakage current versus reverse voltage applied (typical values, per diode).

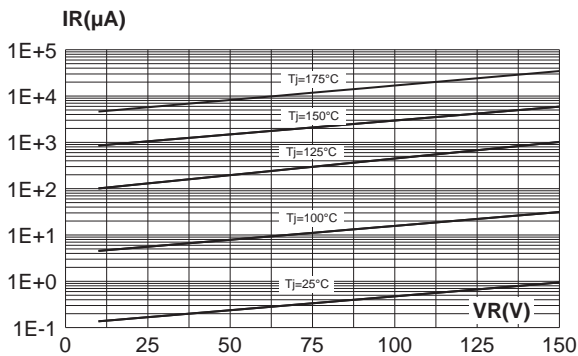


Fig. 2: Average forward current versus ambient temperature ($\delta = 0.5$, per diode).

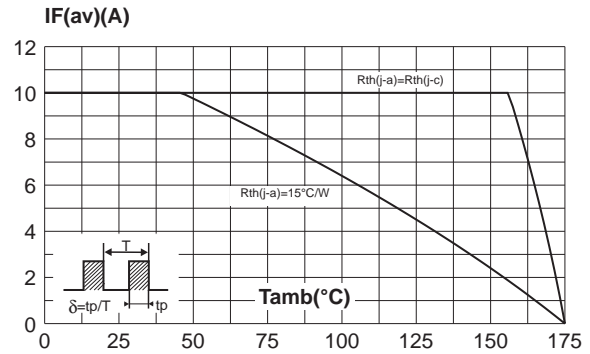


Fig. 4: Relative variation of thermal impedance junction to case versus pulse duration (per diode).

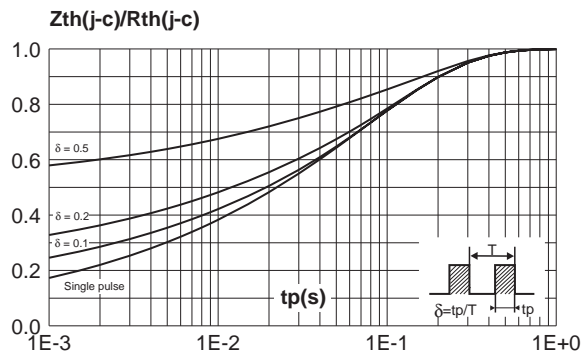


Fig. 6: Junction capacitance versus reverse voltage applied (typical values, per diode).

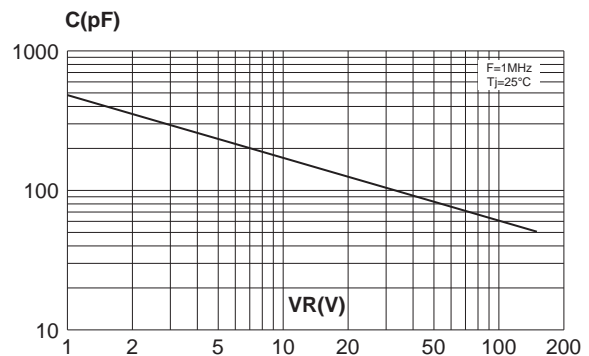


Fig. 7: Forward voltage drop versus forward current (maximum values, per diode).

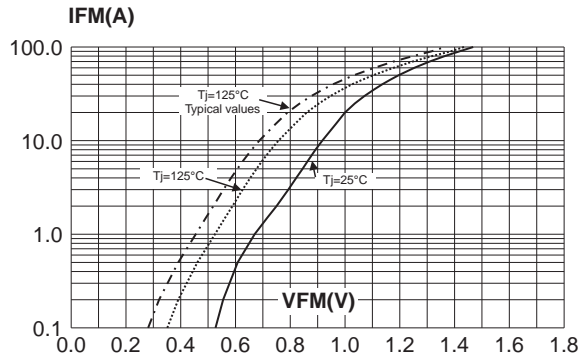
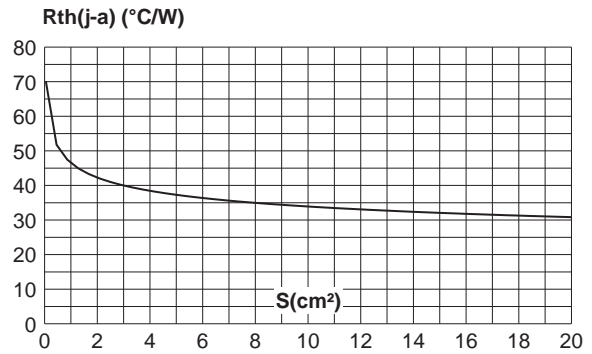


Fig. 8: Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board, copper thickness: 35µm) (STPS20150CG only).





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