



Micro Commercial Components
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MBR10150CT

Features

- High Junction Temperature Capability
- Good Trade Off Between Leakage Current And Forward Voltage Drop
- Low Leakage Current

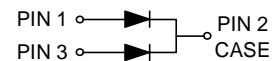
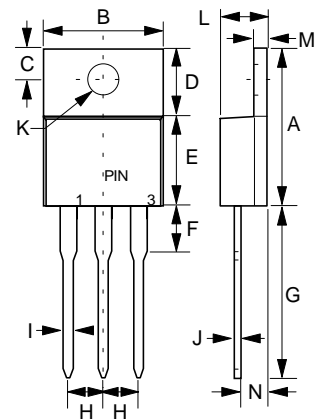
**10 Amp High Voltage
 Power Schottky
 Barrier Rectifier
 150Volts**

Maximum Ratings

- Operating Junction Temperature : 150°C
- Storage Temperature: - 50°C to +150°C
- Per diode Thermal Resistance 4°C/W Junction to Case
- Total Thermal Resistance 2.4°C/W Junction to Case

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR 10150 CT	150 V	105V	150 V

TO-220AB



Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10 A	$T_C = 155^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	120A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR10150CT	V_F	.92V	$I_{FM} = 5A$ $T_J = 25^\circ\text{C}$
	V_F	.75V	$I_{FM} = 5A$ $T_J = 125^\circ\text{C}$
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	50 μA 7m A	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.600	.620	15.25	15.75	
B	.393	.409	10.00	10.40	
C	.104	.116	2.65	2.95	
D	.244	.259	6.20	6.60	
E	.356	.361	9.05	9.15	
F	.137	.154	3.50	3.93	
G	.511	.551	13.00	14.00	
H	.094	.106	2.40	2.70	
I	.024	.034	0.61	0.88	
J	.019	.027	0.49	0.70	
K	.147	.151	3.75	3.85	∅
L	.173	.181	4.40	4.60	
M	.048	.051	1.23	1.32	
N	0.102typ.		2.6typ.		

*Pulse Test: Pulse Width 380 μsec , Duty Cycle 2%

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

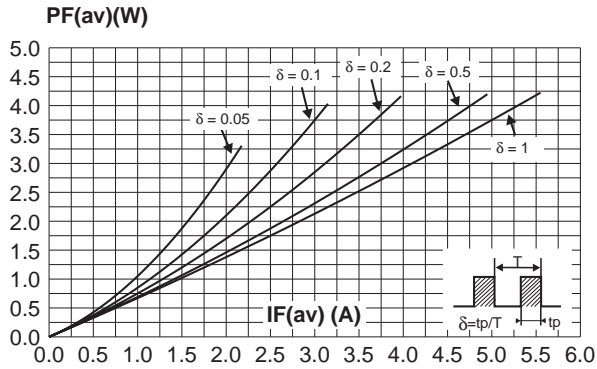


Fig. 2: Average forward current versus ambient temperature ($\delta = 0.5$, per diode).

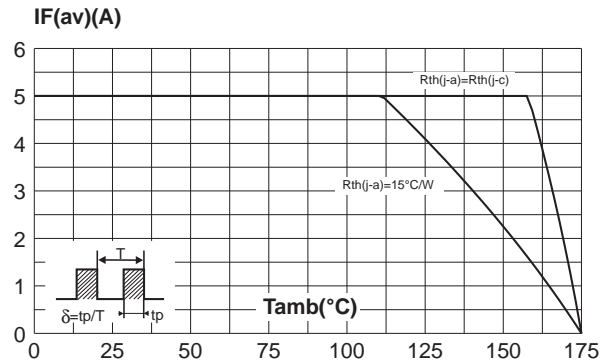


Fig. 3: Non repetitive surge peak forward current versus overload duration (maximum values, per diode).

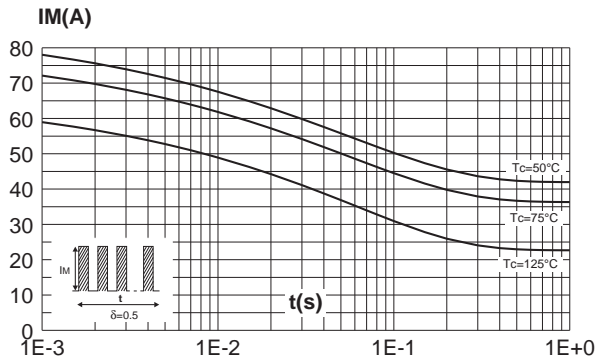


Fig. 4: Relative variation of thermal impedance junction to case versus pulse duration (per diode).

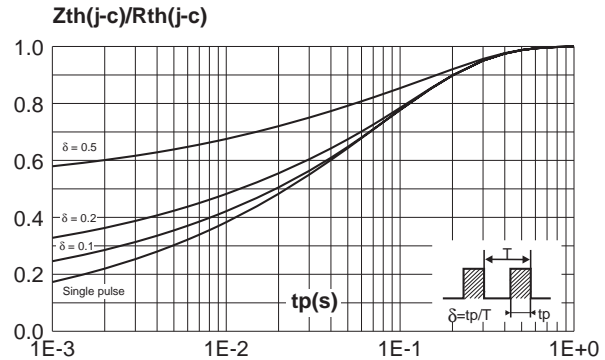


Fig. 5: Reverse leakage current versus reverse voltage applied (typical values, per diode)

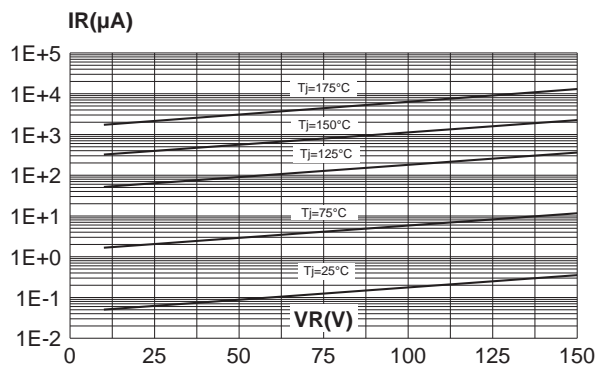


Fig. 6: Junction capacitance versus reverse voltage applied (typical values, per diode).

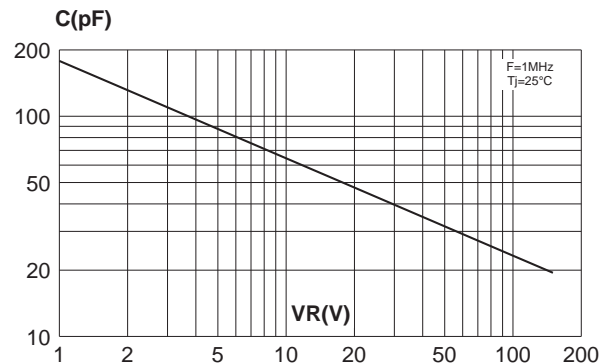


Fig. 7: Forward voltage drop versus forward current (maximum values, per diode).

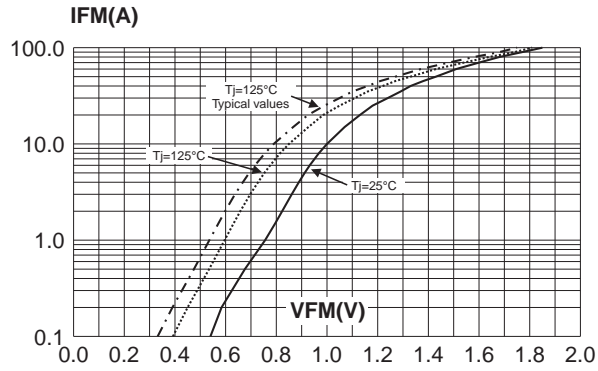


Fig. 8: Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board, copper thickness: 35µm) (STPS10150CG only).

