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MBR10150CT

10 Amp High Voltage Power Schottky Barrier Rectifier 150Volts

Features

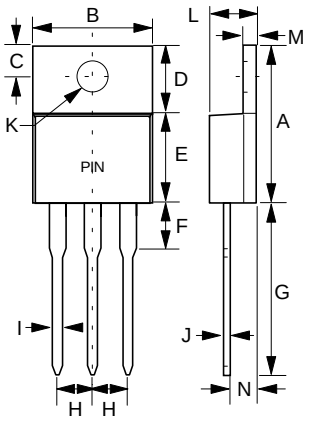
- High Junction Temperature Capability
- Good Trade Off Between Leakage Current And Forward Volage Drop
- Low Leakage Current

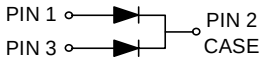
Maximum Ratings

- 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

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

TO-220AB





DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	
E	.380	.420	9.65	10.67	
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	

Electrical Characteristics @ 25°C Unless Otherwise Specified

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

*Pulse Test: Pulse Width380µsec, Duty Cycle 2%

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

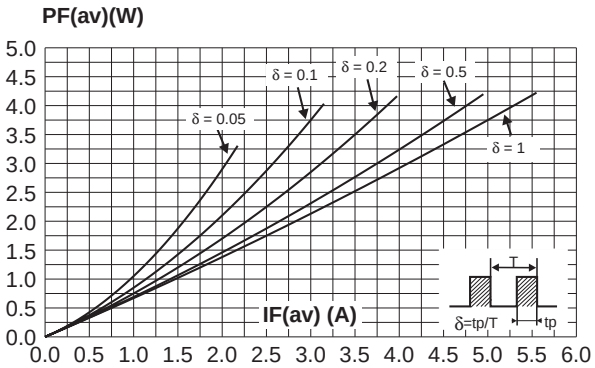


Fig. 2: Average forward current versus ambient temperature (δ = 0.5, per diode).

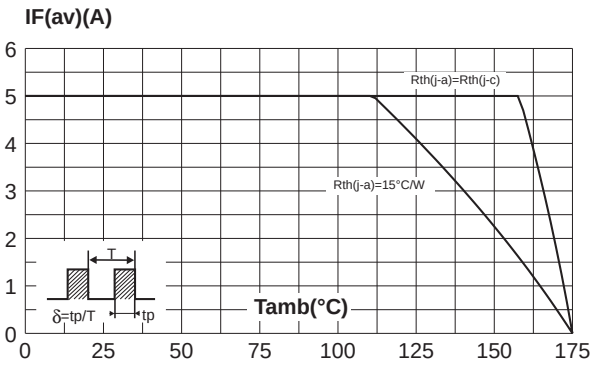


Fig. 3: Non repetitive surge peak forward current versus overload duration (maximum values, per diode).

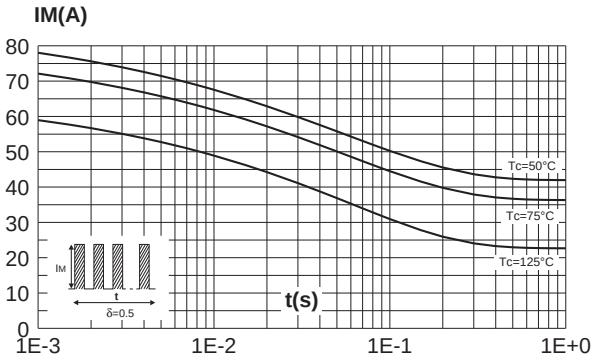


Fig. 4: Relative variation of thermal impedance junction to case versus pulse duration (per diode).

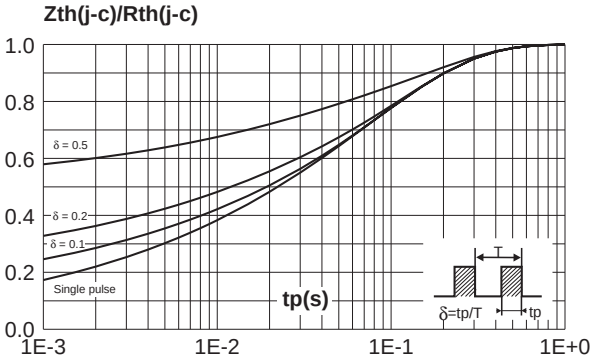


Fig. 5: Reverse leakage current versus reverse voltage applied (typical values, per diode)

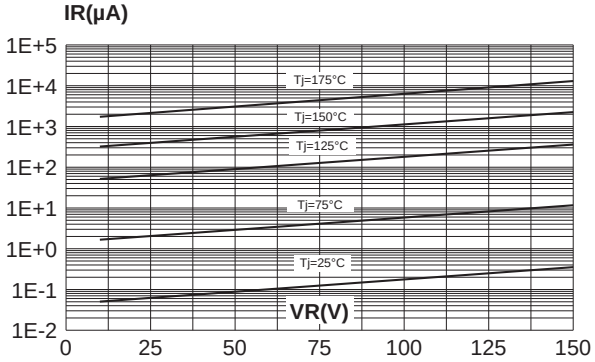


Fig. 6: Junction capacitance versus reverse voltage applied (typical values, per diode).

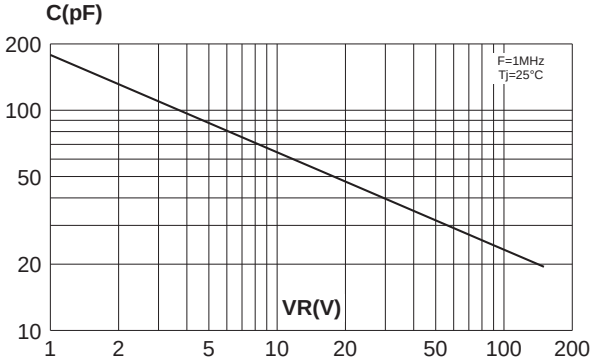


Fig. 7: Forward voltage drop versus forward current (maximum values, per diode).

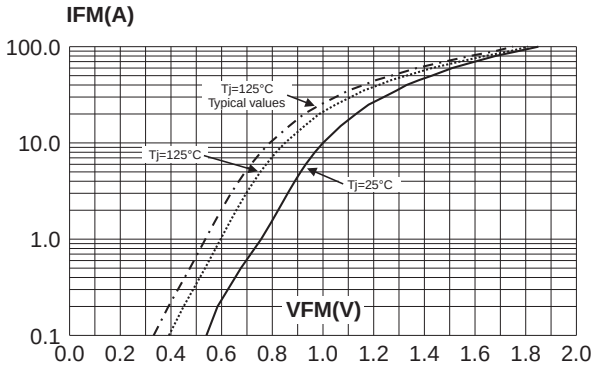
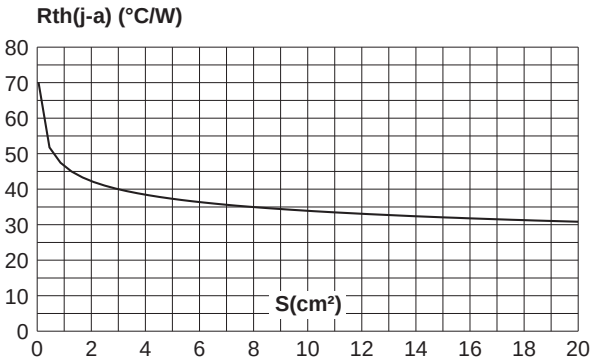


Fig. 8: Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board, copper thickness: 35µm) (STPS10150CG only).



Marking

1. Marking on the semiconductor (laser marking or UV ink marking)