



Micro Commercial Components



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# MBR20150FCT

## Features

- High Junction Temperature Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Leakage Current
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: type number
- Halogen free available upon request by adding suffix "-HF"

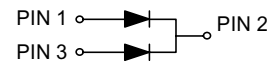
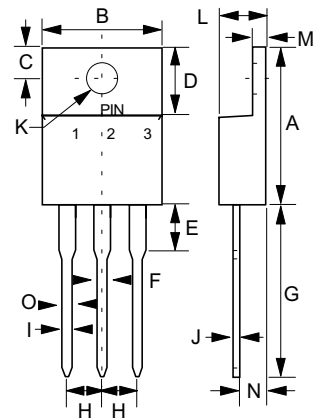
**20 Amp High Voltage  
 Power Schottky  
 Barrier Rectifier  
 150Volts**

## 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 FCT	150 V	105V	150 V

## ITO-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	$I_{FSM}$	150A	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 $\mu$ A 5m A	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.583	.630	14.80	16.00	
B	---	.406	---	10.30	
C	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
E	---	.161	---	4.10	
F	---	.071	---	1.80	
G	.512	.543	13.00	13.80	
H	.100		2.55		
I	---	.035	---	0.90	
J	---	.032	---	0.80	
K	.118	.134	3.00	3.40	Ø
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

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

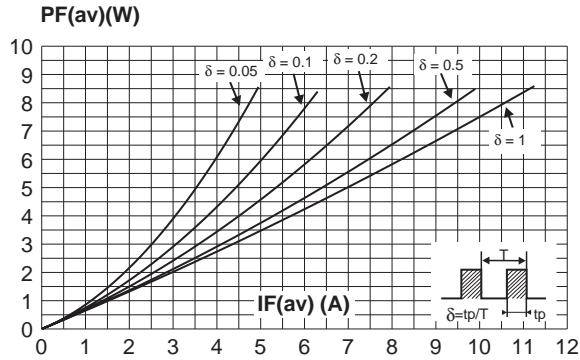
[www.mccsemi.com](http://www.mccsemi.com)

MBR20150FCT

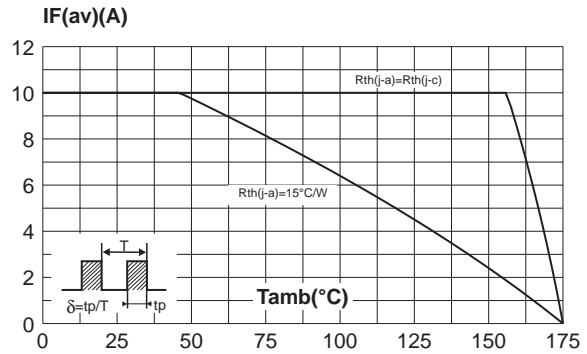


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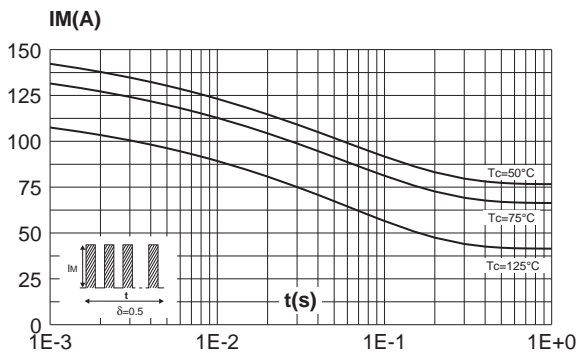
**Fig. 1:** Average forward power dissipation versus average forward current (per diode).



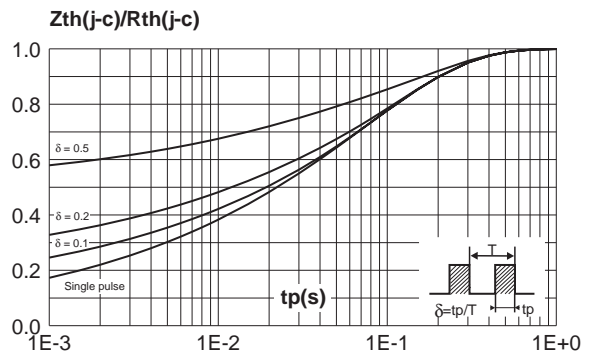
**Fig. 2:** Average forward current versus ambient temperature ( $\delta = 0.5$ , per diode).



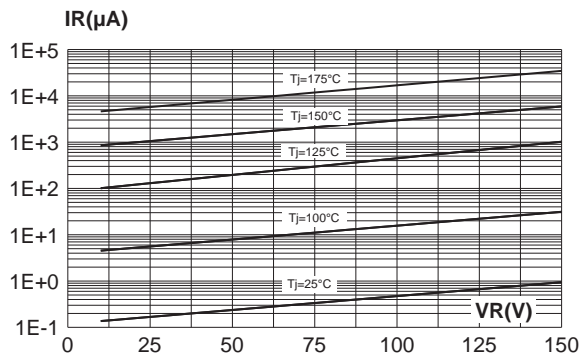
**Fig. 3:** Non repetitive surge peak forward current versus overload duration (maximum values, per diode).



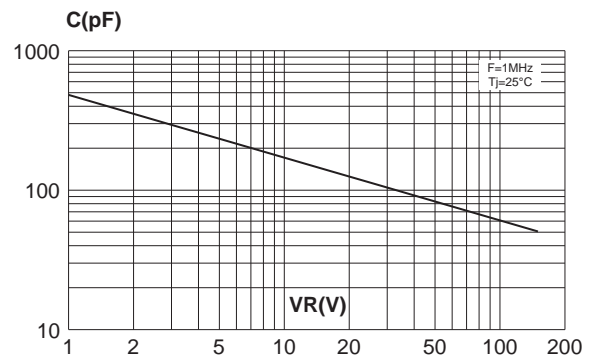
**Fig. 4:** Relative variation of thermal impedance junction to case versus pulse duration (per diode).



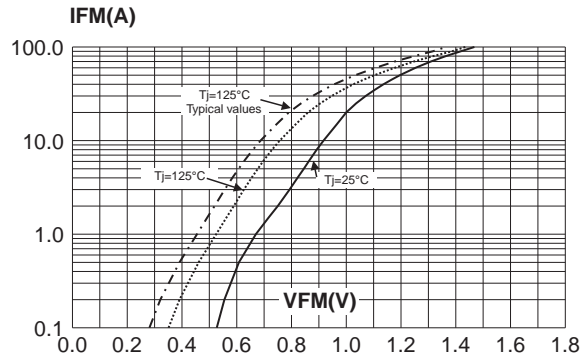
**Fig. 5:** Reverse leakage current versus reverse voltage applied (typical values, per diode).



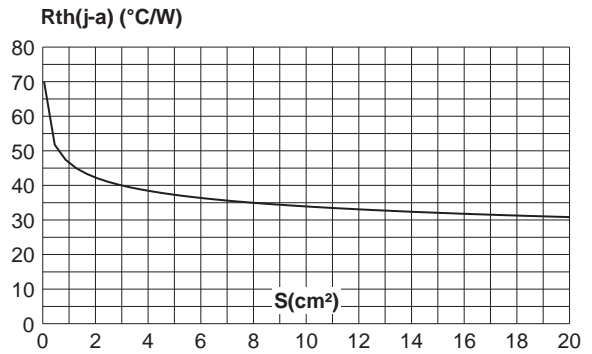
**Fig. 6:** Junction capacitance versus reverse voltage applied (typical values, per diode).



**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) (STPS20150CG only).





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Ordering Information :

Device	Packing
Part Number-BP	Bulk: 1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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