



# MBR20H150CT \ MBR20H150FCT \ MBR20H150DC

## ULTRA LOW IR SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**150 V**

**Current**

**20 A**

### Features

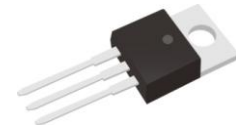
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- High junction temperature capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: TO-220AB, ITO-220AB, TO-263 package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- TO-220AB Weight: 0.067 ounces, 1.89 grams.
- ITO-220AB Weight: 0.056 ounces, 1.6 grams.
- TO-263 Weight: 0.049 ounces, 1.38 grams.
- Marking: Part number

	150V
TO-220AB	MBR20H150CT
ITO-220AB	MBR20H150FCT
TO-263	MBR20H150DC

TO-220AB



ITO-220AB



TO-263



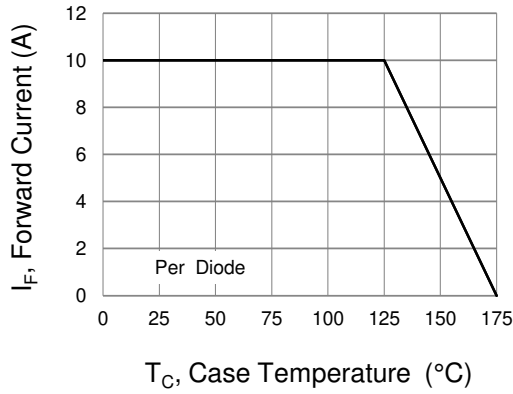
### Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25° C unless otherwise noted)

PARAMETER		SYMBOL	150V	UNIT
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	150	V
Maximum rms voltage		V <sub>RMS</sub>	105	V
Maximum dc blocking voltage		V <sub>R</sub>	150	V
Maximum average forward rectified current	per device	I <sub>F(AV)</sub>	20	A
	per diode		10	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	200	A
Maximum forward voltage at 10A per diode		V <sub>F</sub>	0.85	V
Maximum dc reverse current at rated dc blocking voltage	T <sub>J</sub> =25° C	I <sub>R</sub>	0.55	μA
	T <sub>J</sub> =125° C		1	mA
Typical thermal resistance	TO-220AB(Note 1)	R <sub>θJC</sub>	3	°C/W
	TO-263(Note 1)		3	
	ITO-220AB(Note 1)		7	
Operating junction temperature range		T <sub>J</sub>	-55 to +175	°C
Storage temperature range		T <sub>STG</sub>	-55 to +175	°C

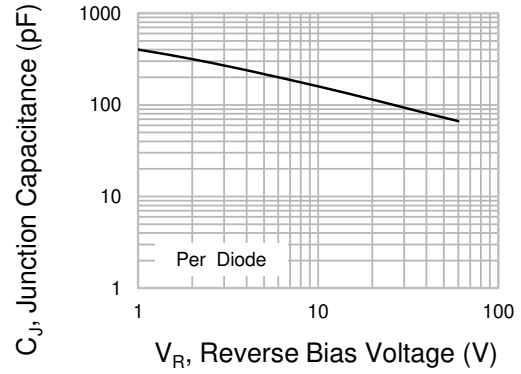
Note : 1. Semi-infinite heatsink



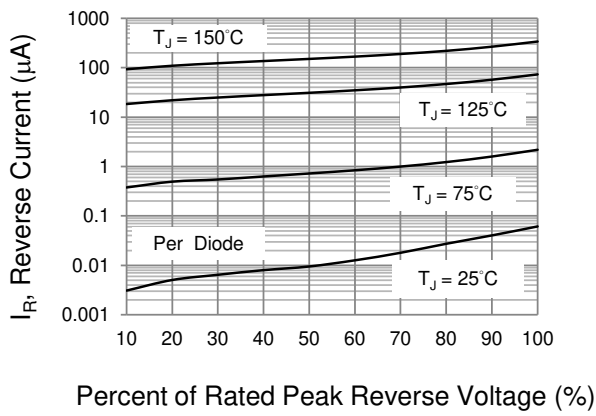
# MBR20H150CT \ MBR20H150FCT \ MBR20H150DC



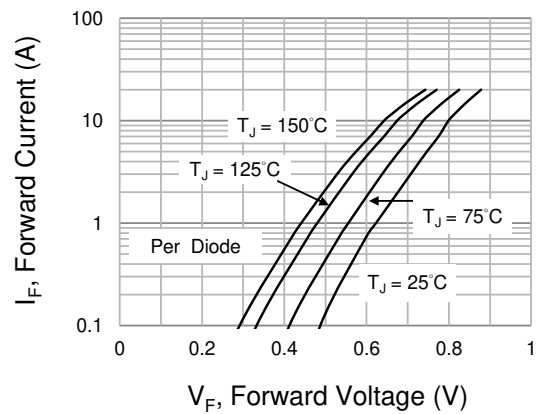
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

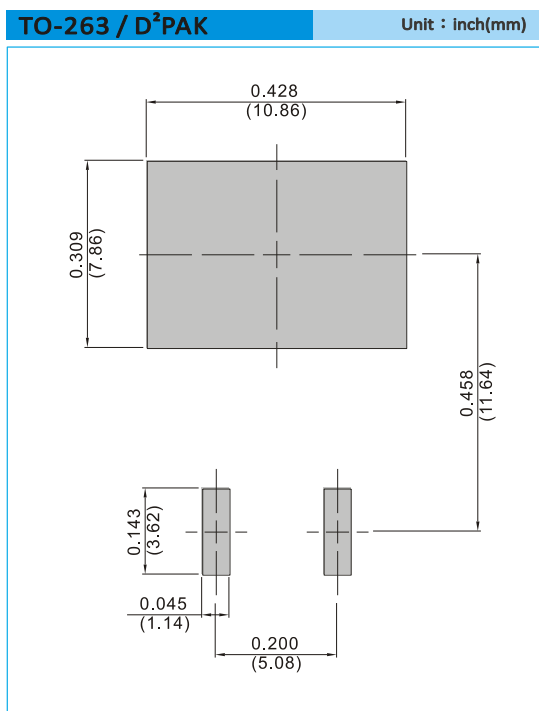


**Fig.4 Typical Forward Characteristics**



# MBR20H150CT \ MBR20H150FCT \ MBR20H150DC

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

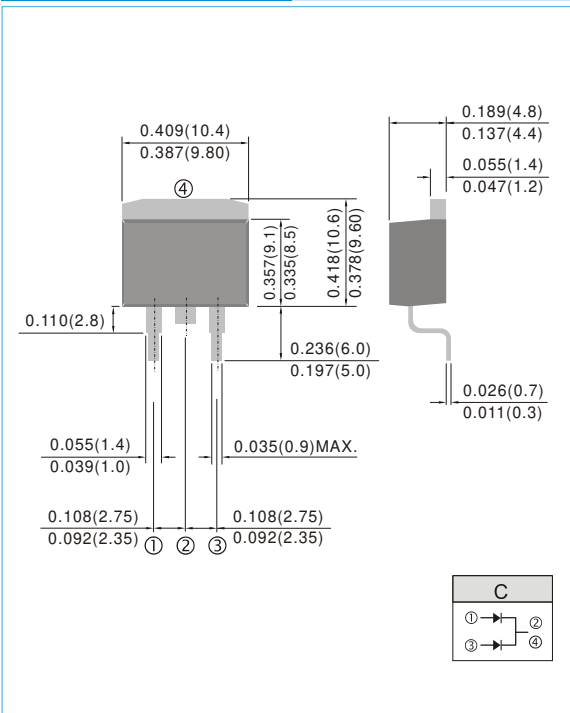
- Packing information  
T/R – 0.8K per 13" plastic Reel



# MBR20H150CT \ MBR20H150FCT \ MBR20H150DC

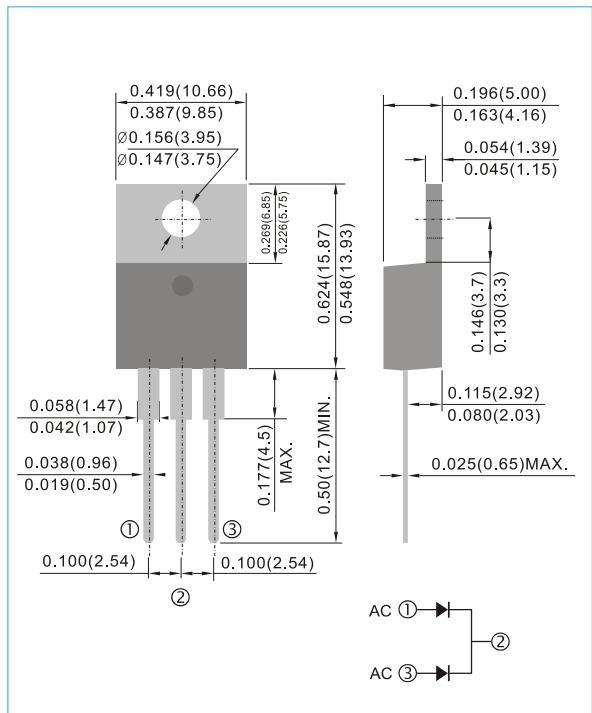
**TO-263 / D<sup>2</sup>PAK**

Unit : inch(mm)



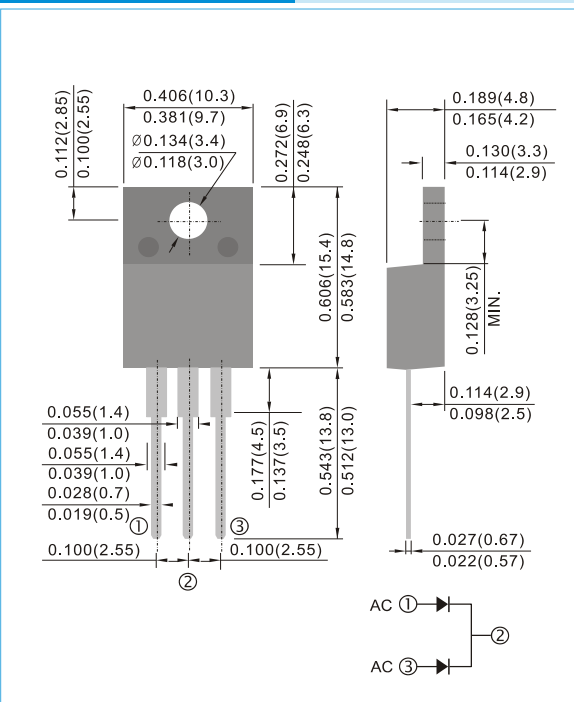
**TO-220AB**

Unit : inch(mm)



**ITO-220AB**

Unit : inch(mm)





## MBR20H150CT \ MBR20H150FCT \ MBR20H150DC

### Part No\_packing code\_Version

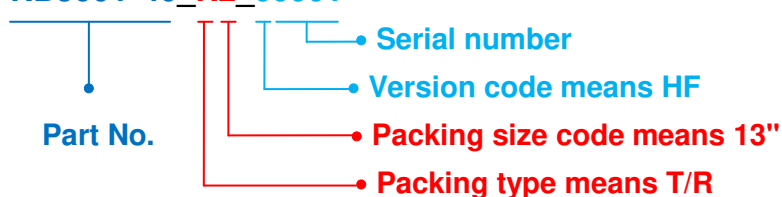
MBR20H150CT\_T0\_00001

MBR20H150DC\_R2\_00001

MBR20H150FCT\_T0\_00001

### For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## **MBR20H150CT \ MBR20H150FCT \ MBR20H150DC**

### **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.