



## BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

### ULTRA LOW IR SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**150 V**

**Current**

**10 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

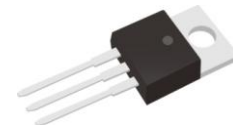
- Case: TO-252, TO-220AB, ITO-220AB, TO-263 package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- TO-252 Weight: 0.0104 ounces, 0.297 grams
- TO-220AB Weight: 0.067 ounces, 1.89 grams.
- ITO-220AB Weight: 0.056 ounces, 1.6 grams.
- TO-263 Weight: 0.049 ounces, 1.38 grams.
- Marking: Part number

	150V
TO-252	BD10H150CS
TO-220AB	MBR10H150CT
ITO-220AB	MBR10H150FCT
TO-263	MBR10H150DC

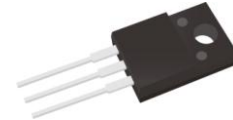
TO-252



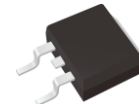
TO-220AB



ITO-220AB



TO-263



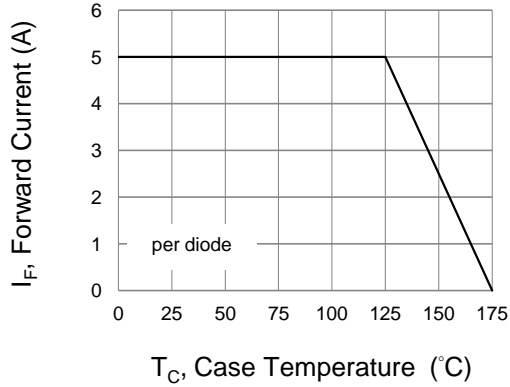
### Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25<sup>o</sup>C unless otherwise noted)

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>	10	A
	per diode		5	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	120	A
Maximum forward voltage at 5A per diode		V <sub>F</sub>	0.85	V
Maximum dc reverse current at rated dc blocking voltage	T <sub>J</sub> =25 <sup>o</sup> C	I <sub>R</sub>	0.5	μA
	T <sub>J</sub> =125 <sup>o</sup> C		1	mA
Typical thermal resistance	TO-252 (Note 1)	R <sub>θJC</sub>	6	°C/W
	TO-220AB(Note 1)		3	
	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

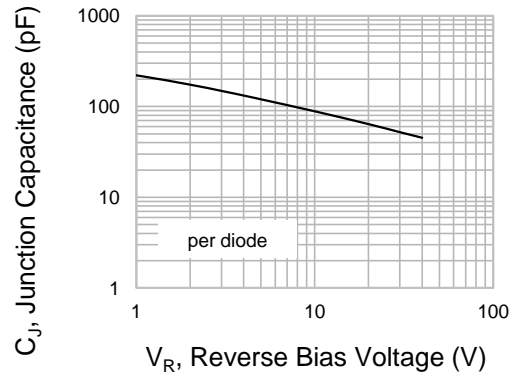
Note : 1. Device mounted on a infinite heatsink, then measured the center of the marking side.



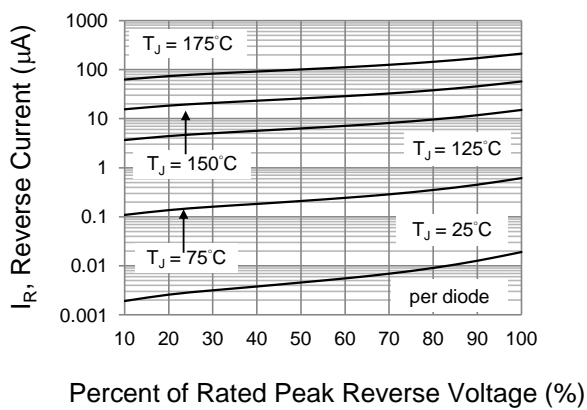
**BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES**



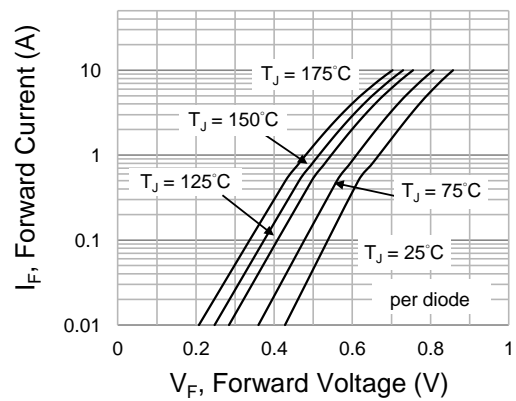
**Fig.1 Forward Current Derating Curve**



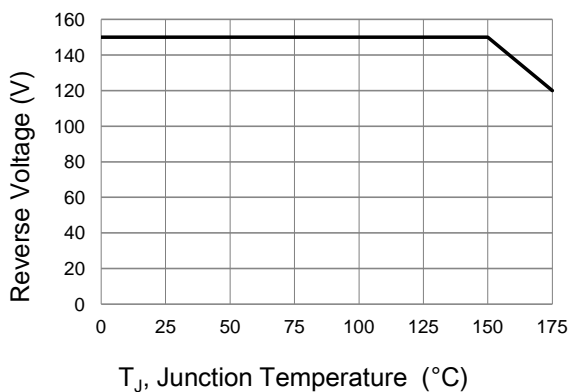
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

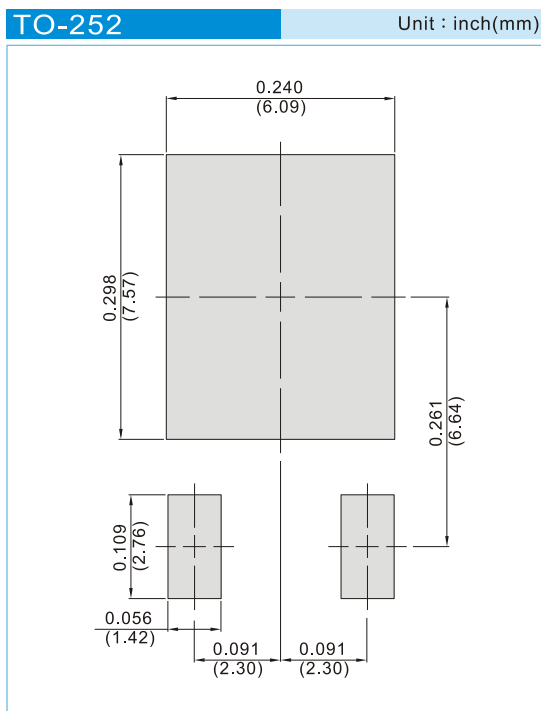


**Fig.5 Operating Temperature Derating Curve**



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**MOUNTING PAD LAYOUT**



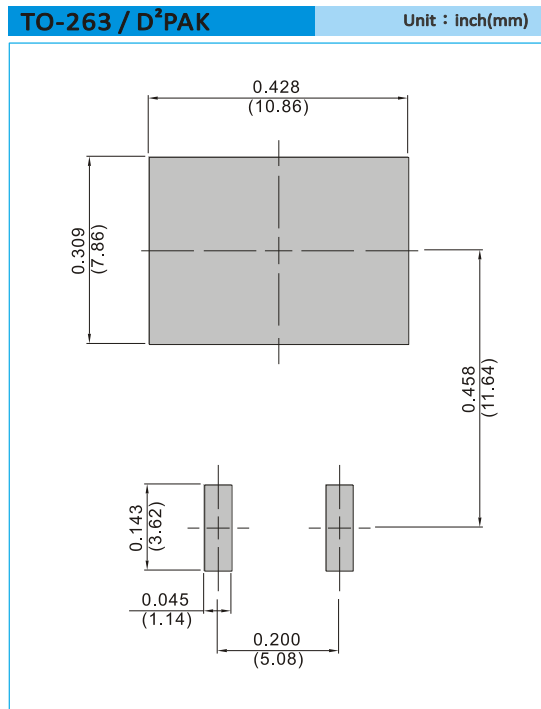
**ORDER INFORMATION**

- Packing information  
T/R - 3K per 13" plastic Reel



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**MOUNTING PAD LAYOUT**



**ORDER INFORMATION**

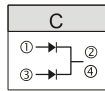
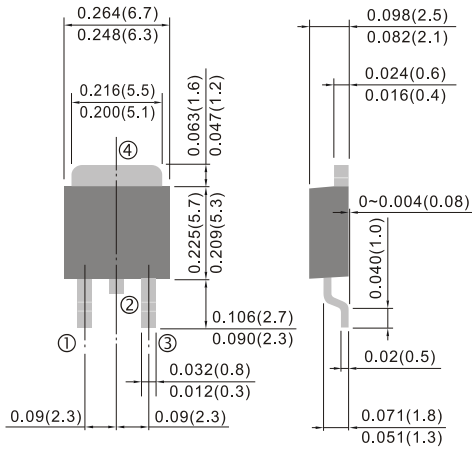
- Packing information  
T/R – 0.8K per 13" plastic Reel



**BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES**

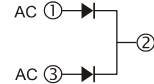
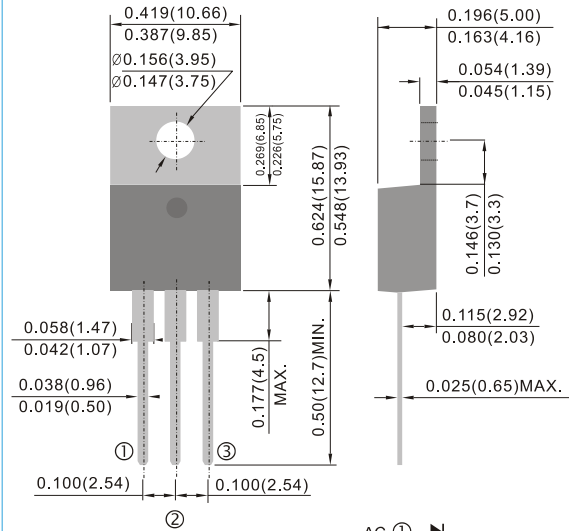
**TO-252**

Unit : inch(mm)



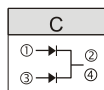
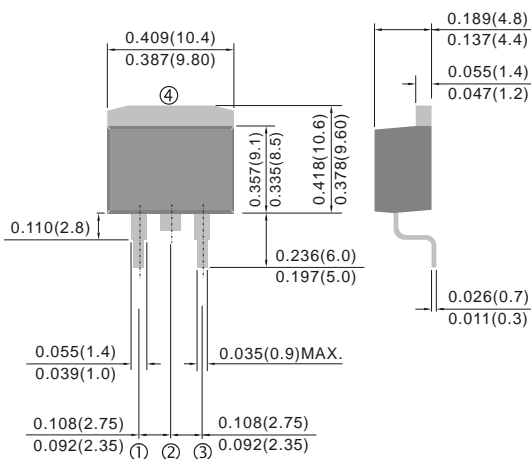
**TO-220AB**

Unit : inch(mm)



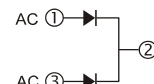
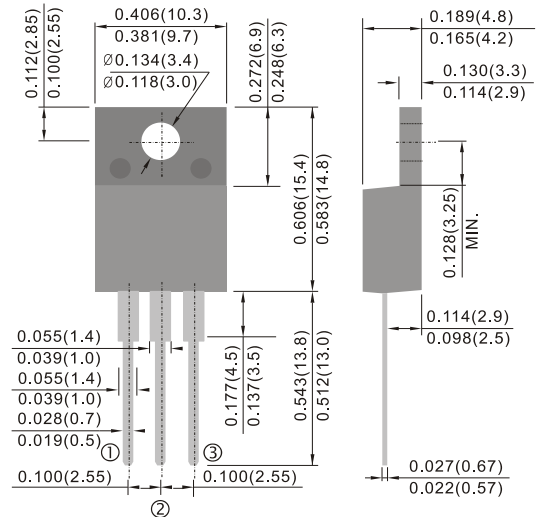
**TO-263 / D<sup>2</sup>PAK**

Unit : inch(mm)



**ITO-220AB**

Unit : inch(mm)





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**Part No\_packing code\_Version**

BD10H150CS\_L2\_00001

BD10H150CS\_S2\_00001

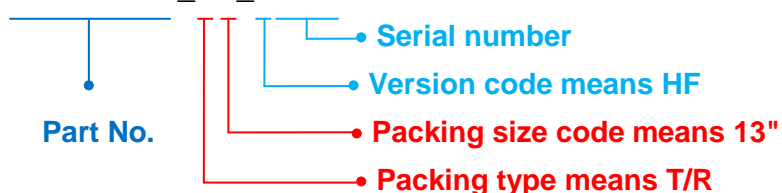
MBR10H150CT\_T0\_00001

MBR10H150DC\_R2\_00001

MBR10H150FCT\_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>			



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