



# MBR3H150SS \ SX3H15

## ULTRA LOW IR SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**150 V**

**Current**

**3 A**

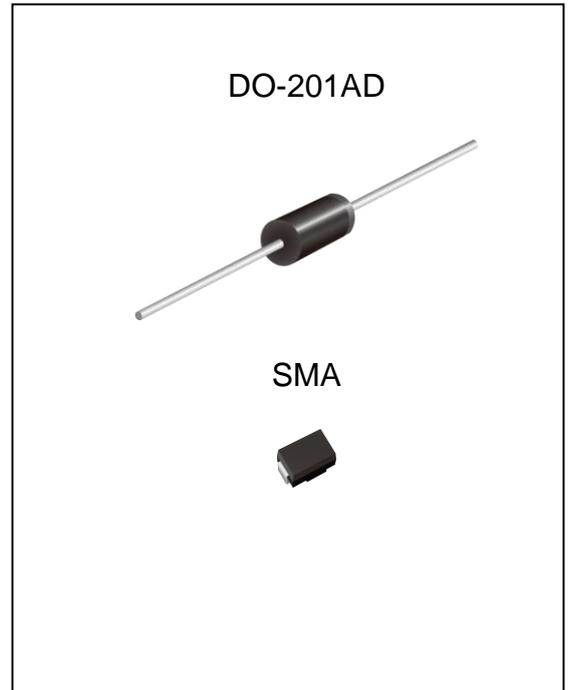
### Features

- 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 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free) (SMA)

### Mechanical Data

- Case: SMA, DO-201AD package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- SMA Weight: 0.0024 ounces, 0.068 grams.
- DO-201AD Weight: 0.0403 ounces, 1.142 grams.
- Marking: Part number

	150V
SMA	SX3H15
DO-201AD	MBR3H150SS



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

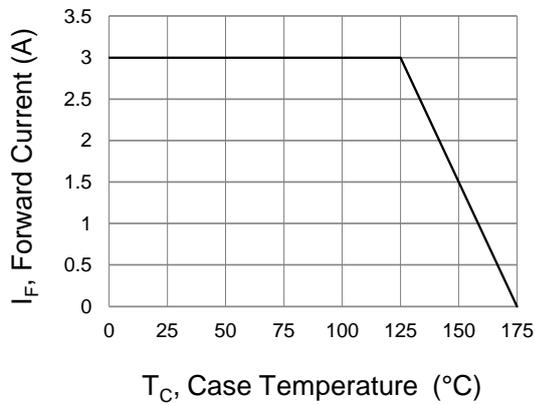
PARAMETER		SYMBOL	150V	UNIT
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	150	V
Maximum rms voltage		V <sub>RMS</sub>	105	V
Maximum dc blocking voltage		V <sub>R</sub>	150	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	80	A
Maximum forward voltage at 3A		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>	0.5	μA
	T <sub>J</sub> =125°C		1	mA
Typical thermal resistance	SMA(Note 1)	R <sub>θJC</sub>	22	°C/W
	DO-201AD(Note 2)		17	
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. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area

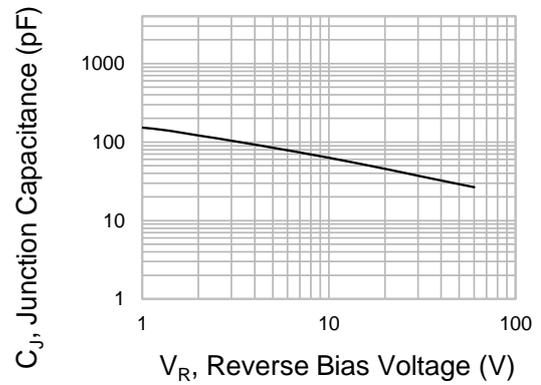
2. The testing condition of the thermal resistance (junction to case) is based on 10 mm lead length between two 10cm x 10cm copper pad



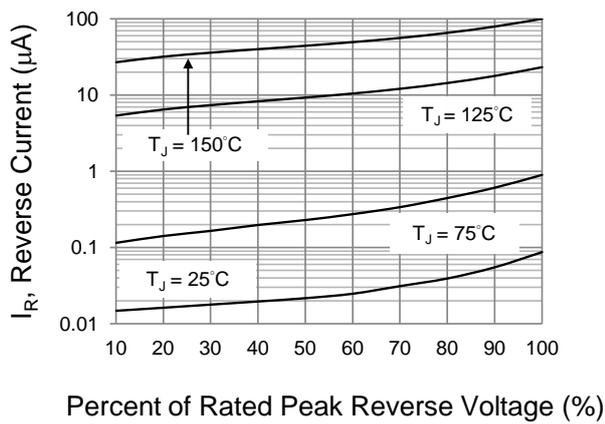
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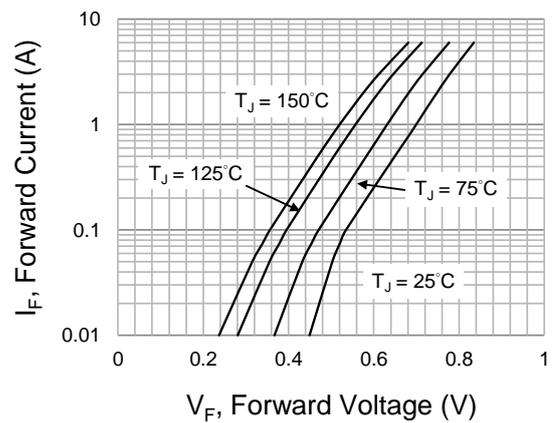
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

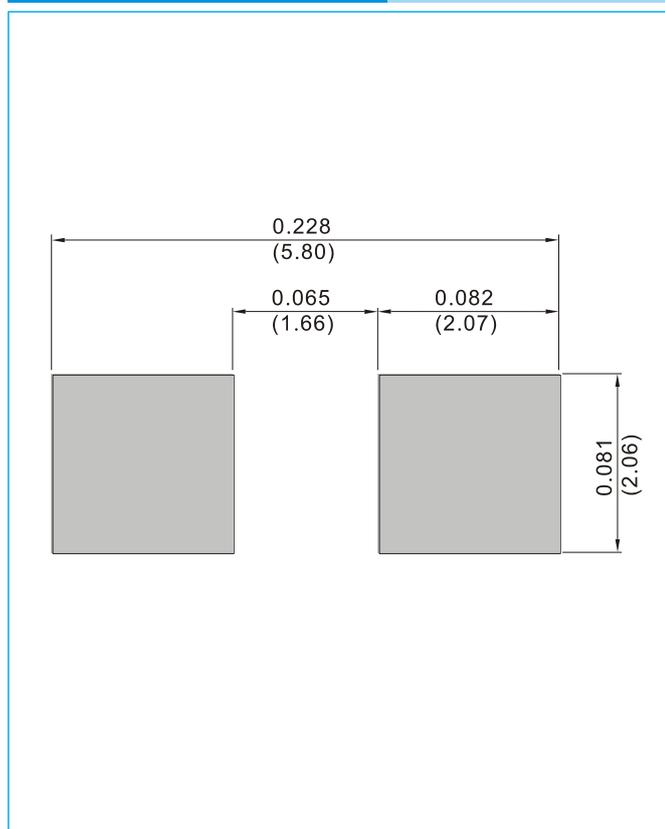


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### MOUNTING PAD LAYOUT

SMA / DO-214AC

Unit : inch(mm)



### ORDER INFORMATION

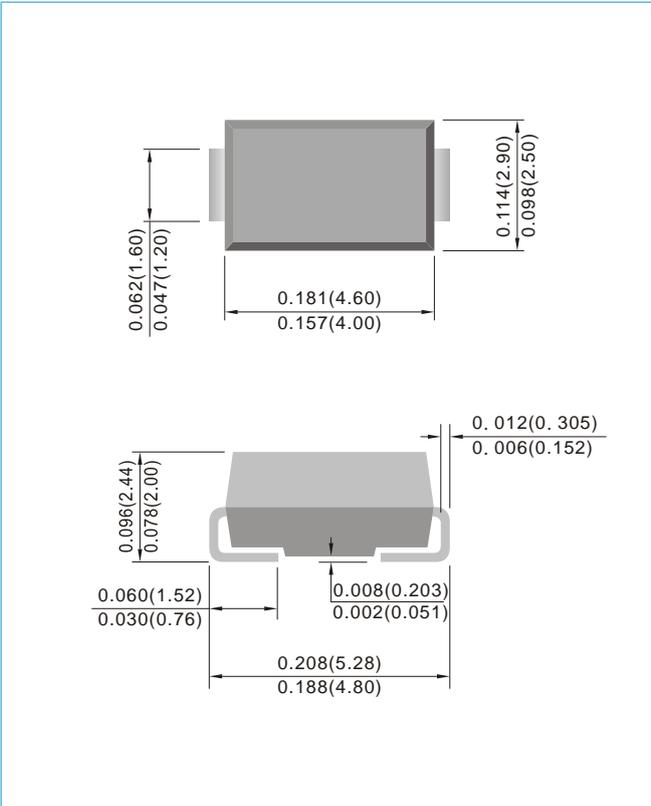
- Packing information  
T/R – 7.5K per 13" plastic Reel  
T/R – 1.8K per 7" plastic Reel



# MBR3H150SS \ SX3H15

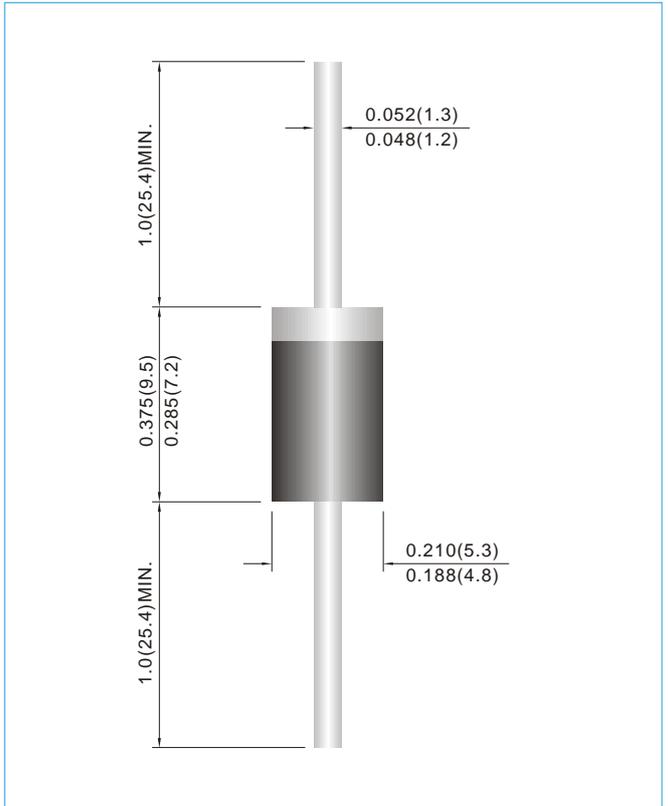
## SMA / DO-214AC

Unit : inch(mm)



## DO-201AD

Unit : inch(mm)





## MBR3H150SS \ SX3H15

### Part No\_packing code\_Version

SX3H15\_R1\_00001

SX3H15\_R2\_00001

MBR3H150SS\_AY\_00001

MBR3H150SS\_AY\_10001

MBR3H150SS\_B0\_00001

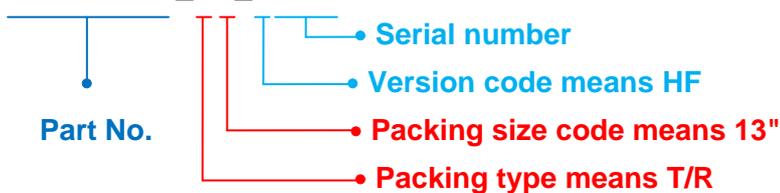
MBR3H150SS\_B0\_10001

MBR3H150SS\_R2\_00001

MBR3H150SS\_R2\_10001

### For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXXX</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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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