



# MBR1545 / MBR1560

## SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**45 / 60 V**

**Current**

**15 A**

### Features

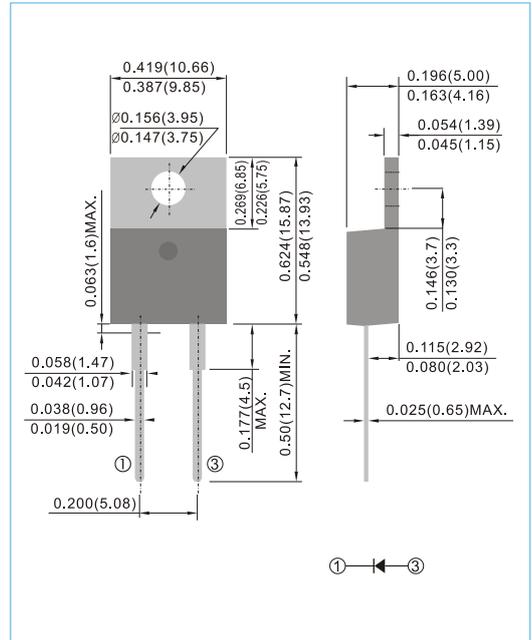
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### Mechanical Data

- Case: Molded plastic, TO-220AC
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.067 ounces, 1.89 grams
- Marking: Part number

**TO-220AC**

Unit : inch(mm)



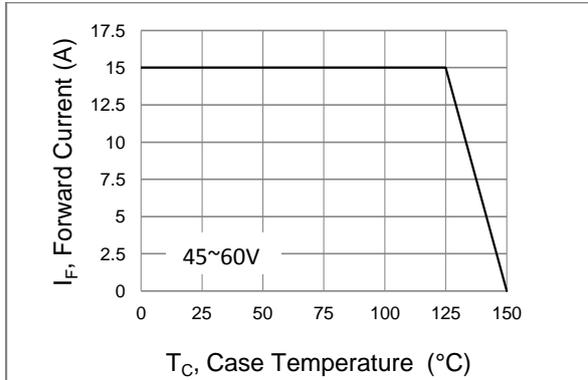
### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	MBR1545	MBR1560	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	60	V
Maximum rms voltage	$V_{RMS}$	31	42	V
Maximum dc blocking voltage	$V_R$	45	60	V
Maximum average forward rectified current	$I_{F(AV)}$	15		A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	280		A
Maximum forward voltage at 15A	$V_F$	0.64	0.75	V
Maximum dc reverse current at rated dc blocking voltage	$I_R$	50		$\mu\text{A}$
Typical thermal resistance	(Note 1) $R_{\theta JC}$	2		$^{\circ}\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150		$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150		$^{\circ}\text{C}$

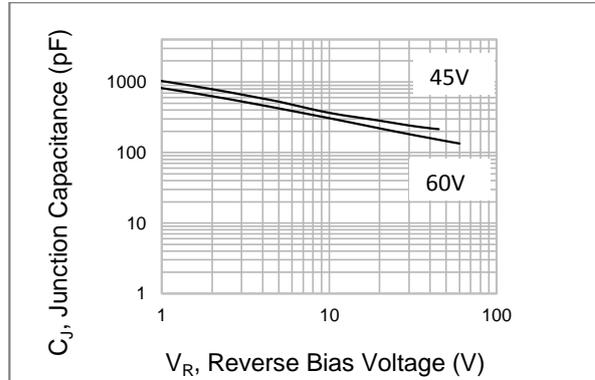
Note : 1. Device mounted on a infinite heatsink.



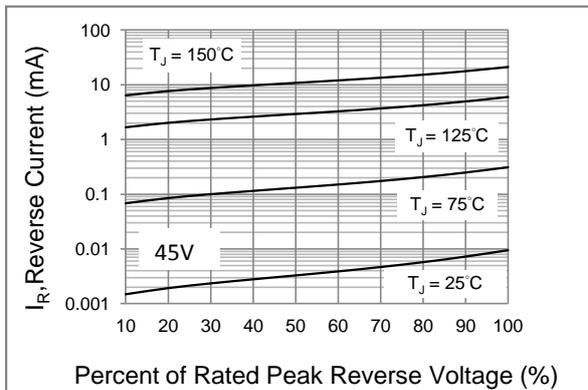
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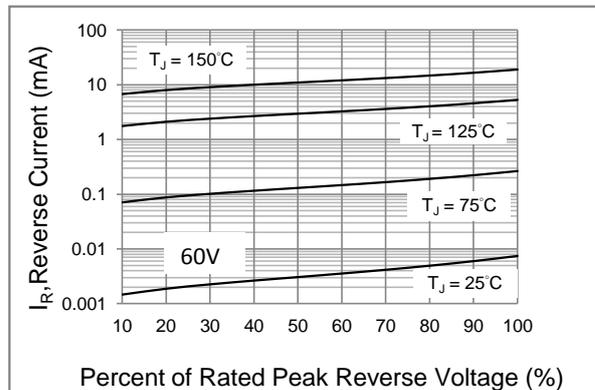
**Fig.1 Forward Current Derating Curve**



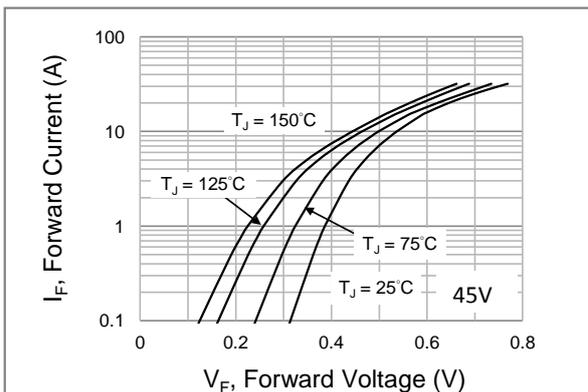
**Fig.2 Typical Junction Capacitance**



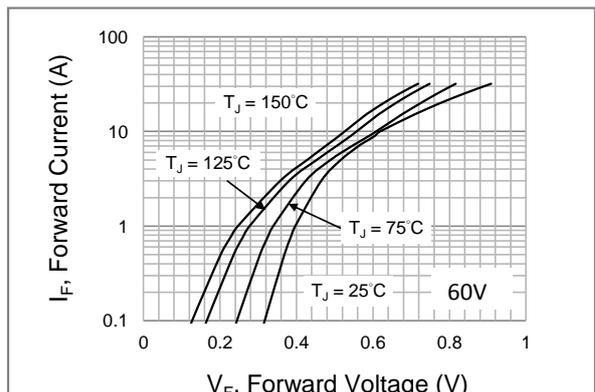
**Fig.3 Typical Reverse Characteristics**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.4 Typical Forward Characteristics**



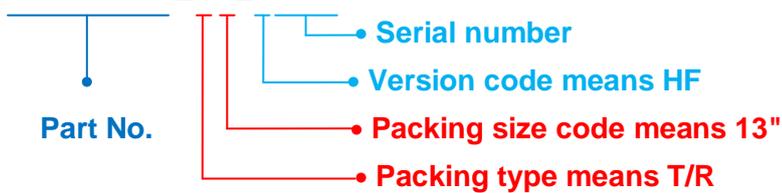
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Part No\_packing code\_Version

MBR1545\_T0\_00001

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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