



# MBR1060HEWS

## SCHOTTKY BARRIER DIODE

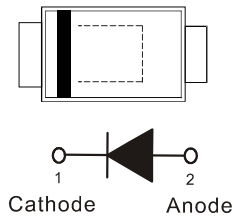
**VOLTAGE** 60 Volt **CURRENT** 1 Ampere

### FEATURES

- SOD-323HE low profile package
- Low forward voltage drop, low reverse current
- High Efficiency
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

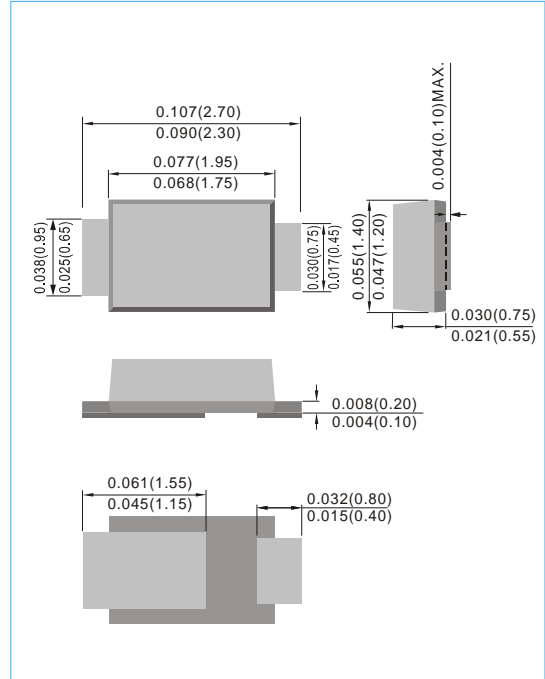
### APPLICATIONS

- Case: SOD-323HE, Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams
- Low voltage high frequency inverters
- DC/DC converters
- Polarity protection
- Freewheeling
- Marking : KB



### SOD-323HE

Unit : inch(mm)



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	60	V
RMS Voltage	V <sub>RMS</sub>	42	V
DC Blocking Voltage	V <sub>R</sub>	60	V
Average Rectified Output Current	I <sub>F(AV)</sub>	1	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	20	A
Typical Thermal Resistance, Junction to Lead (Note 1)	R <sub>θJL</sub>	40	°C/W
Junction to Ambiente (Note 1)	R <sub>θJA</sub>	220	°C/W
Operating junction temperature range and Storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	°C

Note : Mounted on P.C Board with (15mmx50mm) copper pad areas.



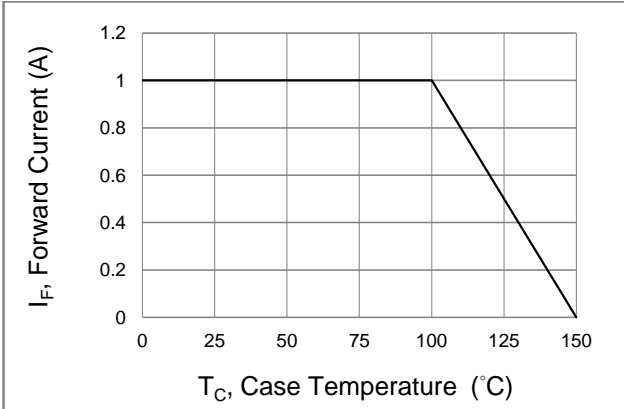
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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

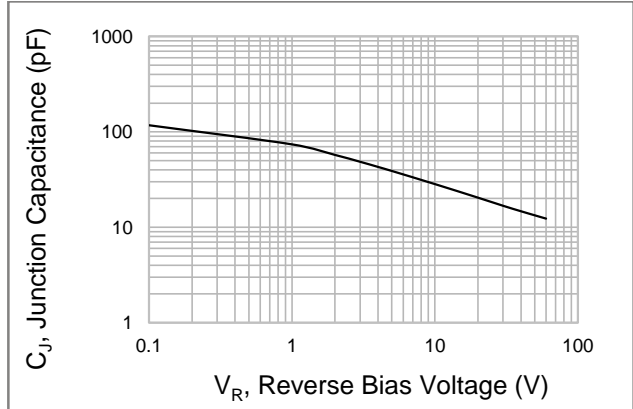
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA T <sub>A</sub> =25°C	60	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =0.1A T <sub>A</sub> =25°C	-	0.41	-	V
		I <sub>F</sub> =0.7A	-	0.57	-	
		I <sub>F</sub> =1A	-	0.61	0.68	
		I <sub>F</sub> =0.1A T <sub>A</sub> =125°C	-	0.28	-	V
I <sub>F</sub> =0.7A	-	0.51	-			
I <sub>F</sub> =1A	-	0.56	-			
Reverse current	I <sub>R</sub>	V <sub>R</sub> =5V T <sub>A</sub> =25°C	-	0.07	-	μA
		V <sub>R</sub> =60V T <sub>A</sub> =25°C	-	1.05	50	μA
		V <sub>R</sub> =60V T <sub>A</sub> =125°C	-	0.80	-	mA



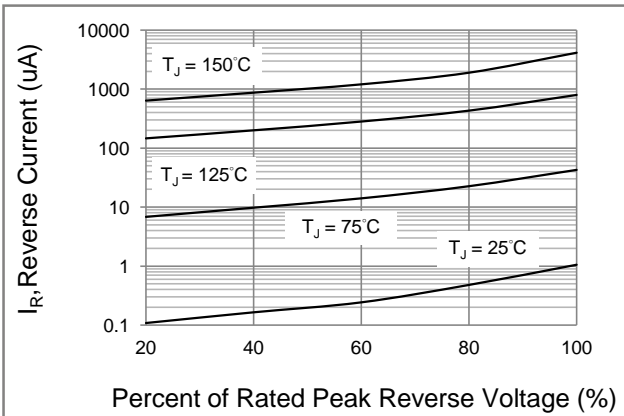
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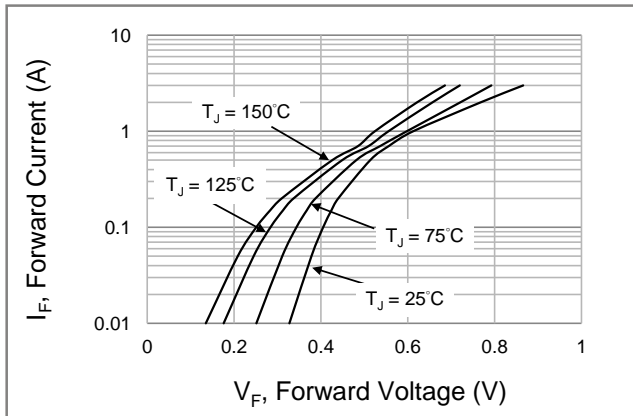
**Fig.1 Forward Current Derating Curve**



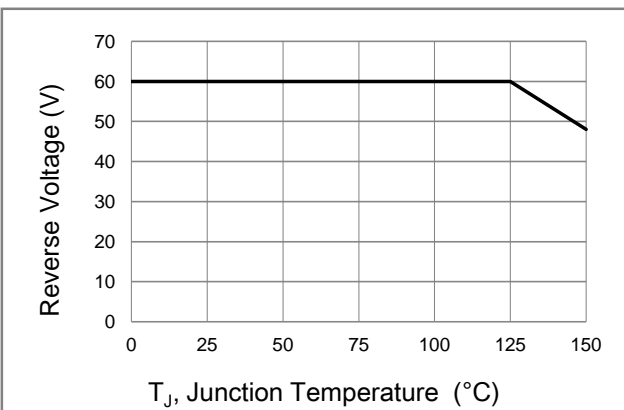
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

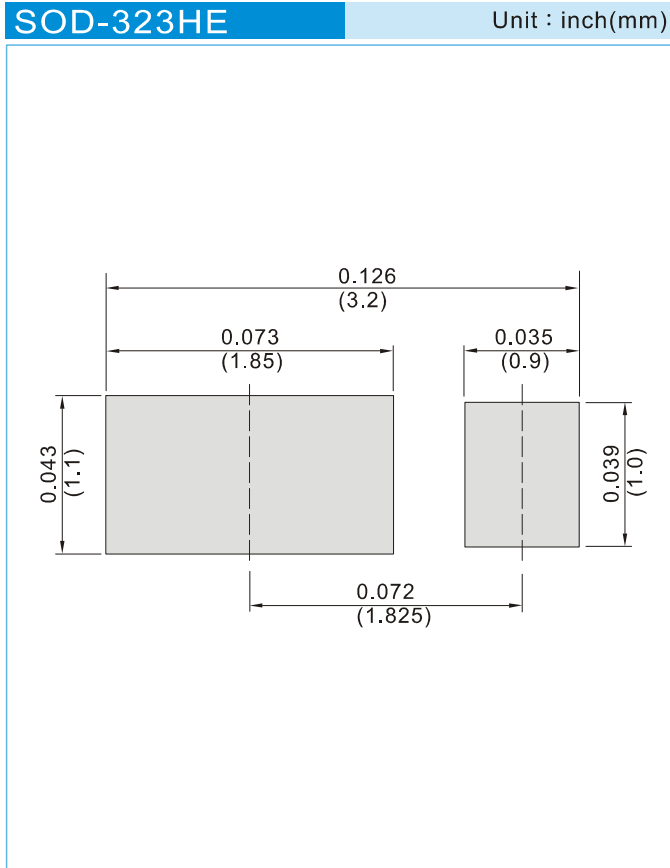


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 12K per 13" plastic Reel  
T/R - 5K per 7" plastic Reel



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## Part No\_packing code\_Version

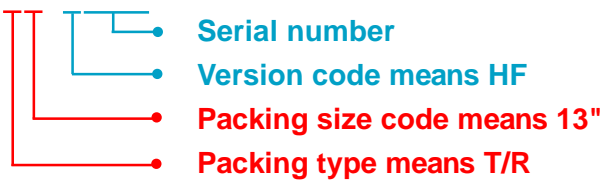
MBR1060HEWS\_R1\_00001

MBR1060HEWS\_R2\_00001

For example :

**RB500V-40** **R2** **00001**

Part No.



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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