



# MBR1040HEWS

## SCHOTTKY BARRIER DIODE

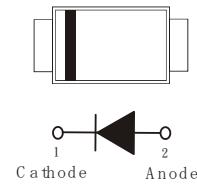
VOLTAGE 40 Volts CURRENT 1 Ampere

### FEATURES

- SOD-323HE low profile package
- Low forward voltage drop, low reverse current
- High Efficiency
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

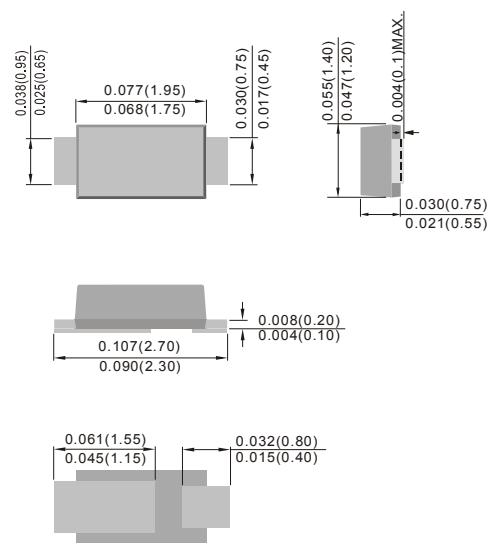
### APPLICATIONS

- Case: SOD-323HE, Plastic
- Terminals:Solder plated,solderable per MIL-STD-750,Method2026
- Approx. Weight: 0.0006 ounces, 0.0185 grams
- Low voltage high frequency inverters
- DC/DC converters
- Polarity protection
- Freewheeling
- Marking : KC



### SOD-323HE

Unit : inch(mm)



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

PARAMETER	SYMBOL	VALUE	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	V
RMS Voltage	V <sub>RMS</sub>	28	V
DC Blocking Voltage	V <sub>R</sub>	40	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 (JEDEC method)	I <sub>FSM</sub>	22	A
Typical Thermal Resistance ,Junction to Lead Junction to Ambiente	(Note 1) (Note 2)	R <sub>θJL</sub> R <sub>θJA</sub>	40 280
Operating junction temperature range and Storage temperature range	T <sub>J,TSTG</sub>	-55 to + 150	°C

#### Note :

- 1.Mounted on an FR-4 PCB , single-sided copper , with 48cm<sup>2</sup> copper pad area.
- 2.Mounted on an FR-4 PCB , single-sided copper , mini pad.



# MBR1040HEWS

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=1\text{mA}$ $T_A=25^\circ\text{C}$	40	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=0.7\text{A}$ $I_F=1\text{A}$ $T_A=25^\circ\text{C}$	-	0.49 0.52	- 0.58	V
		$I_F=0.7\text{A}$ $I_F=1\text{A}$ $T_A=125^\circ\text{C}$	-	0.4 0.44	-	V
Reverse current	$I_R$	$V_R=32\text{V}$ $T_A=25^\circ\text{C}$	-	0.8	-	$\mu\text{A}$
		$V_R=40\text{V}$ $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	-	0.8	50	$\mu\text{A}$ mA

## RATING AND CHARACTERISTIC CURVES

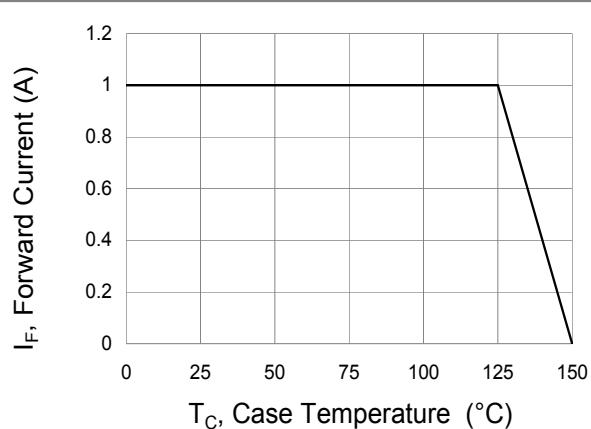


Fig.1 Forward Current Derating Curve

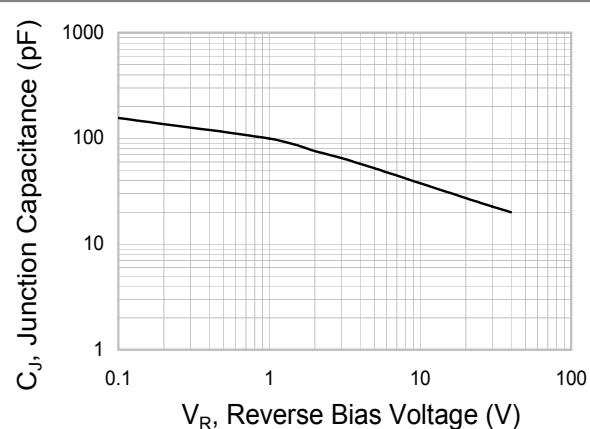


Fig.2 Typical Junction Capacitance

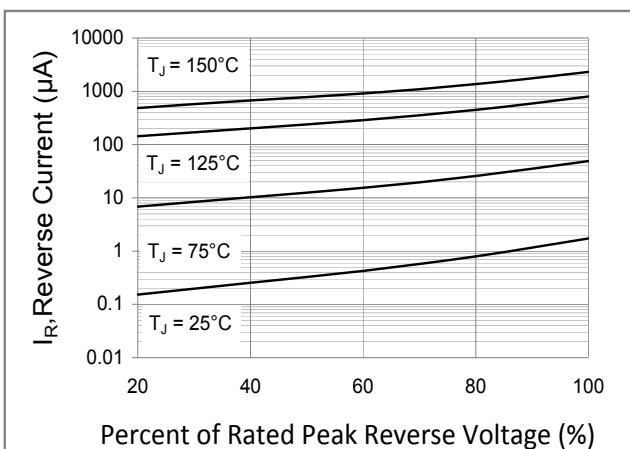


Fig.3 Typical Reverse Characteristics

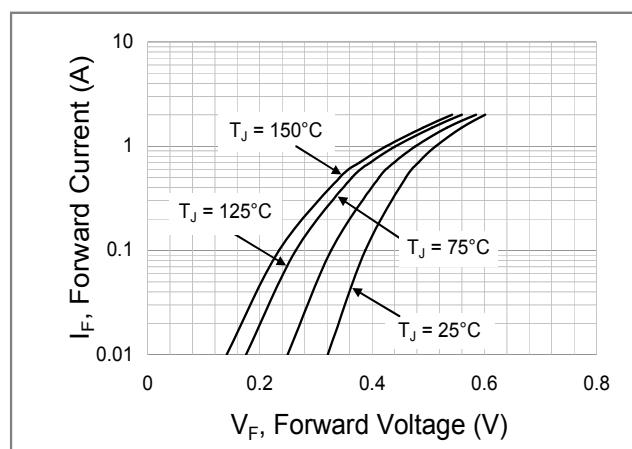


Fig.4 Typical Forward Characteristics

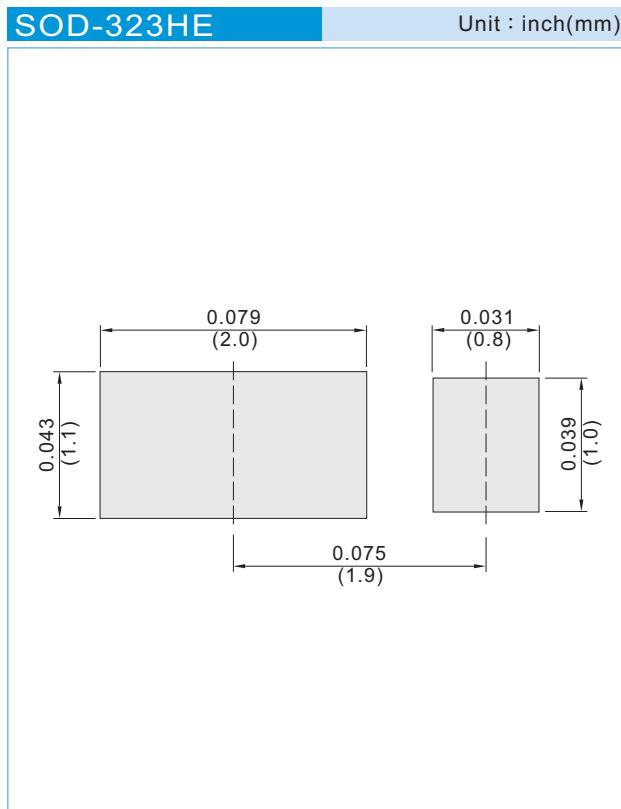


# MBR1040HEWS

---

## MOUNTING PAD LAYOUT

---




---

## ORDER INFORMATION

---

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

---

## LEGAL STATEMENT

---

### **Copyright PanJit International, Inc 2012**

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.



## MBR1040HEWS

For example :

**RB500V-40\_R2\_00001**

- Part No. RB500V-40
- R2 Version code means HF
- 00001 Serial number
- Packing size code means 13"
- Packing type means T/R

Packing Code XX				Version Code XXXXX		
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
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No\_packing code\_Version

MBR1040HEWS\_R1\_00001

MBR1040HEWS\_R2\_00001