



### **SCHOTTKY BARRIER DIODE**

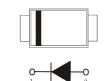
VOLTAGE 40 Volt CURRENT 1 Ampere

#### **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)

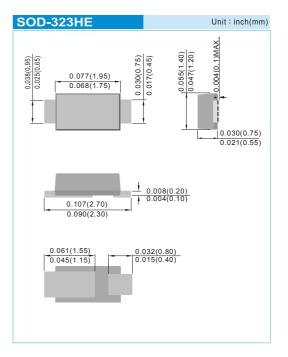
#### **APPLICATIONS**

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



Anode

Cathode



### ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise n

PARAMETER			VALUE	UNITS
Recurrent Peak Reverse Voltage		VRRM	40	V
RMS Voltage		VRMS	28	>
DC Blocking Voltage		VR	40	V
Average Rectified Output Current		l F(AV)	1	А
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		İFSM	22	А
Typical Thermal Resistance ,Junction to Lead Junction to Ambiente	(Note 1) (Note 2)	Røjl Røja	40 280	°C/W
Operating junction temperature range and Storage temperature range		Т <sub>J</sub> ,Тsтg	-55 to + 150	°C

#### Note:

- 1. Mounted on an FR-4 PCB, single-sided copper, with 48cm² copper pad area.
- 2. Mounted on an FR-4 PCB , single-sided copper , mini pad.

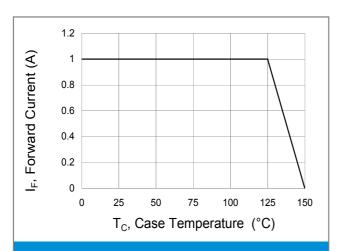




#### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	VBR	I <sub>R</sub> =1mA	T <sub>A</sub> =25°C	40	-	-	V
Instantaneous forward voltage	VF	I F=0.7A I F=1A	Ta=25°C	-	0.49 0.52	- 0.58	V
		I F=0.7A I F=1A	T <sub>A</sub> =125°C	-	0.4 0.44	- -	V
Reverse current	l R	V <sub>R</sub> =32V	T <sub>A</sub> =25°C	-	8.0	-	μΑ
		V <sub>R</sub> =40V	T <sub>A</sub> =25°C T <sub>A</sub> =125°C	-	- 0.8	50 -	μA mA

### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

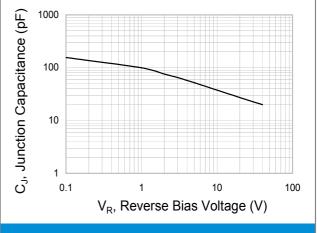


Fig.2 Typical Junction Capacitance

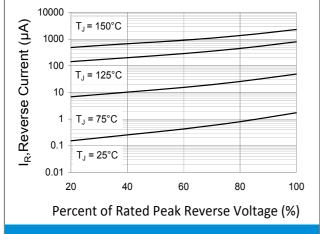


Fig.3 Typical Reverse Characteristics

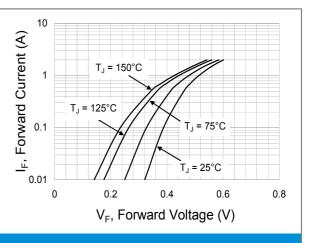
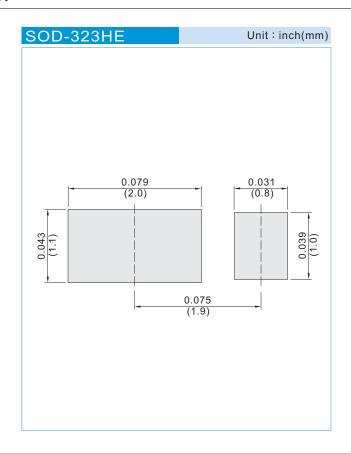


Fig.4 Typical Forward Characteristics





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel





## Part No\_packing code\_Version

MBR1040HEWS\_R1\_00001 MBR1040HEWS\_R2\_00001

## For example:



Packing Code XX			Version Code XXXXXX			
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)	Α	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	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			





## **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties
  of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation.
   Customers are responsible in comprehending the suitable use in particular applications.
   Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.