



### **SCHOTTKY BARRIER DIODE**

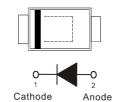
VOLTAGE 40 Volt CURRENT 1 Ampere

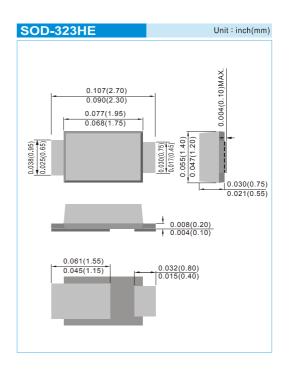
### **FEATURES**

- 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)
- · Acquire quality system certificate: TS16949
- AEC-Q101 qualified

#### **APPLICATIONS**

- · Case: SOD-323HE, Plastic
- Terminals:Solder plated,solderable per MIL-STD-750,Method2026
- Approx. Weight: 0.0002 ounces, 0.005 grams
- Marking : KC





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

PARAMETER			VALUE	UNITS
Recurrent Peak Reverse Voltage		VRRM	40	V
RMS Voltage		VRMS	28	V
DC Blocking Voltage		VR	40	V
Average Rectified Output Current		l F(AV)	1	Α
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load		IFSM	22	Α
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>Ј</sub> ,Тѕтс	-55 to + 150	°C

#### Note:

- 1. Mounted on a FR-4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area.
- $2.\mbox{Mounted}$  on a FR-4 PCB , single-sided copper , mini pad.

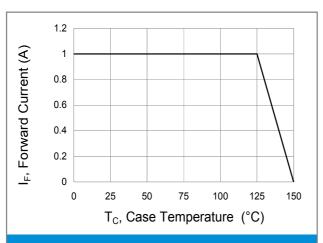




### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	VBR	I R=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	Ta=125°C	-	0.4 0.44	-	V
Reverse current	IR	V <sub>R</sub> =32V	Ta=25°C	-	0.8	-	μΑ
		V <sub>R</sub> =40V	Ta=25°C Ta=125°C	-	- 0.8	50 -	μA mA

### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

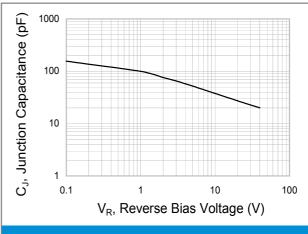


Fig.2 Typical Junction Capacitance

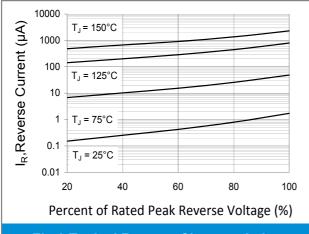


Fig.3 Typical Reverse Characteristics

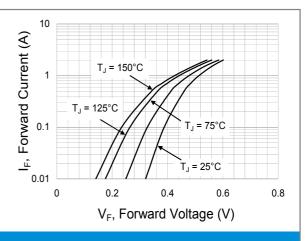
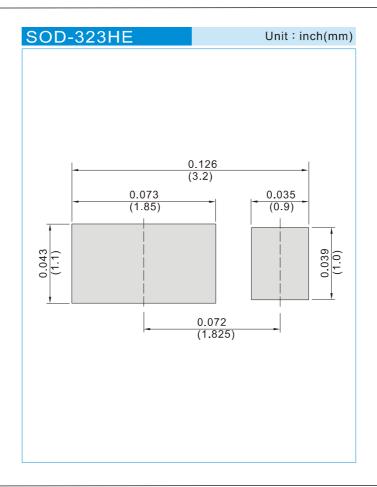


Fig.4 Typical Forward Characteristics





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

· Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

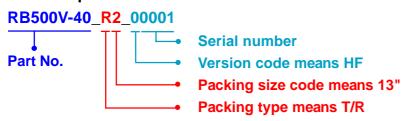




### Part No\_packing code\_Version

MBR1040HEWS-AU\_R1\_000A1 MBR1040HEWS-AU\_R2\_000A1

### For example:



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
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			





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