### SCHOTTKY BARRIER DIODE 40 Volt

VOLTAGE

#### 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)

CURRENT

#### **APPLICATIONS**

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



1 Ampere



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

PARAMETER			VALUE	UNITS
Recurrent Peak Reverse Voltage			40	v
RMS Voltage			28	V
DC Blocking Voltage			40	V
Average Rectified Output Current			1	А
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load		I FSM	22	А
Typical Thermal Resistance ,Junction to Lead Junction to Ambiente	(Note 1) (Note 2)	Rojl Roja	40 280	∘C/W
Operating junction temperature range and Storage temperature range		Т,,Тsтg -55 to + 150		°C

#### Note :

- 1. Mounted on an FR-4 PCB , single-sided copper , with  $48 \text{cm}^2$  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	IR=1mA	Ta=25°C	40	-	-	V
Instantaneous forward voltage	VF	IF=0.7A IF=1A	TA=25°C	-	0.49 0.52	- 0.58	V
		I ⊧=0.7A I ⊧=1A	TA=125°C	-	0.4 0.44	-	V
Reverse current	l r	Vr=32V	T₄=25°C	-	0.8	-	μA
		VR <b>=</b> 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.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 :

### RB500V-40\_R2\_00001



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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