

# DATA SHEET

## SK12~S110

#### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SMB/DO-214AA Unit: inch (mm) CURRENT 1.0 Ampere VOLTAGE 20 to 100 Volts **FEATURES** · Plastic package has Underwriters Laboratory Flammability Classification 94V-O 155(3.94) · For surface mounted applications · Low profile package · Built-in strain relief 075(1.91) 083(2.11) · Metal to silicon rectifier. majority carrier conduction · Low power loss, high efficiency 185(4.70) · High surge capacity 160(4,06)• High current capacity ,low V · For use in low voltage high frequency inverters, free wheeling, .012(.305) and polarity protection applications. .006(.152) • Lead free in comply with EU RoHS 2011/65/EU directives. 13) 096(2.44) Green molding compound as per IEC61249 Std. (Halogen Free) 083(2. .050(1.27) .008(.203) .030(0.76) 002(.051) **MECHANICAL DATA** 220(5.59) Case: JEDEC DO-214AA molded plastic 200(5.08)

Case: JEDEC DO-214AA molded plastic Terminals:Solder plated, solderable per MIL-STD-750, Method 2026 Polarity: Color band denotes positive end (cathode) Standard packaging: 12mm tape (EIA-481) Weight: 0.003 ounce, 0.093 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load. PARAMETER SYMBOL SK12 SK13 SK14 SK15 SK16 SK18 SK19 S110 UNITS Maximum Recurrent Peak Reverse Voltage Vrrm 20 30 40 50 60 80 90 100 V Maximum RMS Voltage 14 21 28 35 42 56 63 70 V VRMS Maximum DC Blocking Voltage VDC 20 30 40 50 60 80 90 100 V Maximum Average Forward Current .375"(9.5mm) lav 1.0 А lead length at TL=75°C Peak Forward Surge Current :8.3ms single half sine-wave IFSM 30 А superimposed on rated load(JEDEC method) Maximum Forward Voltage at 1.0A (Note 1) VF 0.5 0.7 0.85 V Maximum DC Reverse Current TA=25°C 0.5 IR mΑ at Rated DC Blocking Voltage TA=100°C 20 30 R<sub>θ</sub>JL °C / W Maximum Thermal Resistance (Note 2) RθJA 95 ТJ -50 to +125 °C Operating Junction Temperature Range Storage Temperature Range Tstg -50 to +150 °C

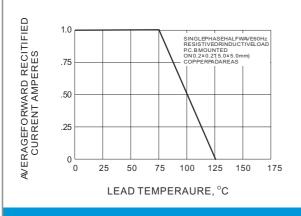
#### NOTES:

A.Pulse Test with PW =300µsec, 1% Duty Cycle.

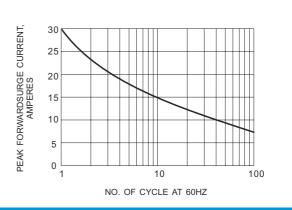
B.Mounted on P.C. Board with 5.0mm<sup>2</sup> (.013mm thick) copper pad areas.



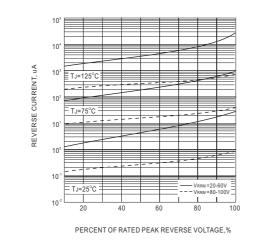
## **RATING AND CHARACTERISTIC CURVES**



### Fig.1- FORWARD CURRENT DERATING CURVE



#### Fig.2-MAXIMUMNON-REPETITIVEPEAK FORWARD SURGECURRENT



### Fig.3- TYPICAL REVERSE CHARACTERISTIC

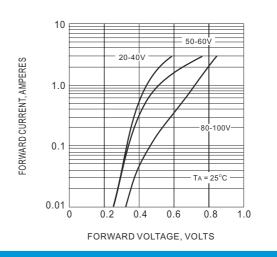
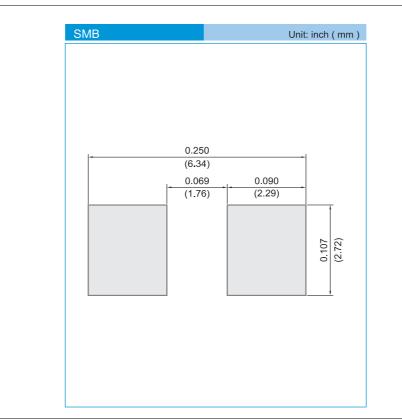


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



### MOUNTING PAD LAYOUT



## **ORDER INFORMATION**

- Packing information
   T/R 3K per 13" plastic Reel
  - T/R 0.5Kper 7" plastic Reel



Part No\_packing code\_Version

SK12\_R1\_00001 SK12\_R2\_00001

## For example :

## RB500V-40\_R2\_00001



Serial number
Version code means HF
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	
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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