



## Technical Data Data Sheet N0930, Rev. A Features

# Green products

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 30A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O
- Green Products in Compliance with the RoHS Directive
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

# B H F G E Directive

### Mechanical Data

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

SMB/DO-214AA								
Dim	Min	Max	Min	Max				
Α	3.30	3.94	0.130	0.155				
В	4.06	4.70	0.160	0.185				
С	1.91	2.11	0.075	0.083				
D	0.15	0.31	0.006	0.012				
E	5.08	5.59	0.200	0.220				
F	2.13	2.44	0.084	0.096				
G	0.05	0.20	0.002	0.008				
Н	0.76	1.27	0.030	0.050				
	In mm		In inch					

# **Marking Diagram:**



Where XXXXX is YYWWL

SK12 = Part Name
 YY = Year
 WW = Week
 L = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

# **Ordering Information:**

Device	Package	Shipping			
SK12-SK110	SMB (Pb-Free)	3000pcs / reel			

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

- China Germany Korea Singapore United States
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# SK12-SK110 1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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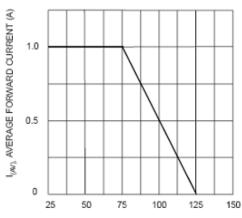
# Maximum Ratings and Electrical characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	SK18	SK19	SK110	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T <sub>L</sub> = 75°C	Io	1.0							Α	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							Α	
Forward Voltage @ I <sub>O</sub> = 1.0 A	V <sub>F</sub>	0.55 0.70 0.85		0.85		V				
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5 20						mA		
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	95						K/W		
Operating Temperature Range	T <sub>J</sub>	-55 to +125						°C		
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C		

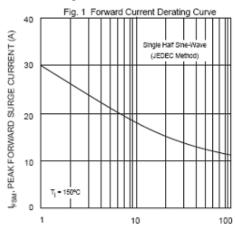
Note: 1. mounted on P.C. Board with 0.5mm<sup>2</sup> copper pad areas.



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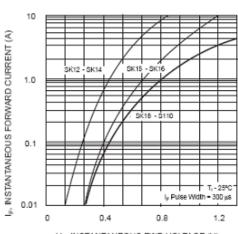




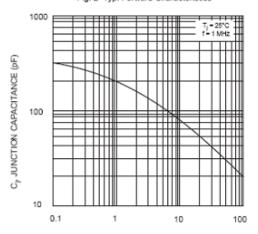


NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

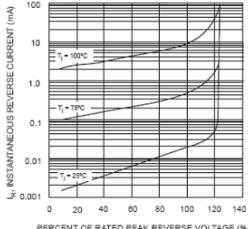
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V<sub>F</sub>, INSTANTANEOUS FWD VOLTAGE (V) Fig. 2 Typ. Forward Characteristics



V<sub>R</sub>, REVERSE VOLTAGE (V) Fig. 4 Typical Junction Capacitance



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics

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