



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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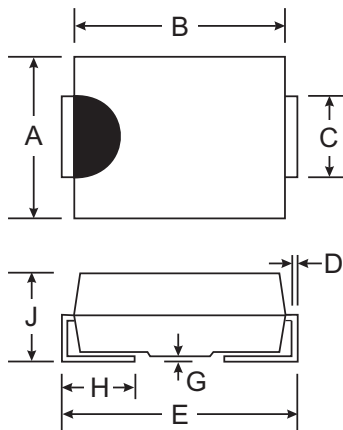
### Features

- For Surface Mounted Applications
- High Temperature Metallurgically Bonded Contacts
- Capable of Meeting Environmental Standards of MIL-STD-19500
- High Reliability
- Submersible Temperature of 265°C for 10 Seconds in Solder Bath
- **Available in Lead Free Finish/RoHS Compliant Version (Note 3)**

### Mechanical Data

- Case: SMB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 5, on Page 3
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Notch
- Approx. Weight: 0.093 grams

**NOT RECOMMENDED FOR NEW DESIGNS -**  
**Use B1x0B Series**



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.00	4.65
C	1.95	2.21
D	0.15	0.40
E	5.00	6.00
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, halfwave, 60Hz resistive or inductive load.

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum Average Forward Rectified Current @ T <sub>A</sub> = 75°C	I <sub>(AV)</sub>	1.0					A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25					A
Maximum Instantaneous Forward Voltage at 1.0A	V <sub>F</sub>	0.55			0.70		V
Maximum DC Reverse Current at Rated    @ T <sub>A</sub> =  25°C DC Blocking Voltage                            @ T <sub>A</sub> = 100°C	I <sub>R</sub>	0.5 10					mA
Maximum Full Load Reverse Current Full Cycle Average @ T <sub>A</sub> = 75°C	I <sub>R</sub>	5					mA
Maximum Thermal Resistance (See Note 1)	R <sub>θJL</sub>	25					°C/W
Typical Total Capacitance (See Note 2)	C <sub>T</sub>	110					pF
Operating Temperature Range	T <sub>J</sub>	-65 to +125					°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150					°C

- Notes:
1. Thermal resistance from junction to lead.
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V.
  3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.

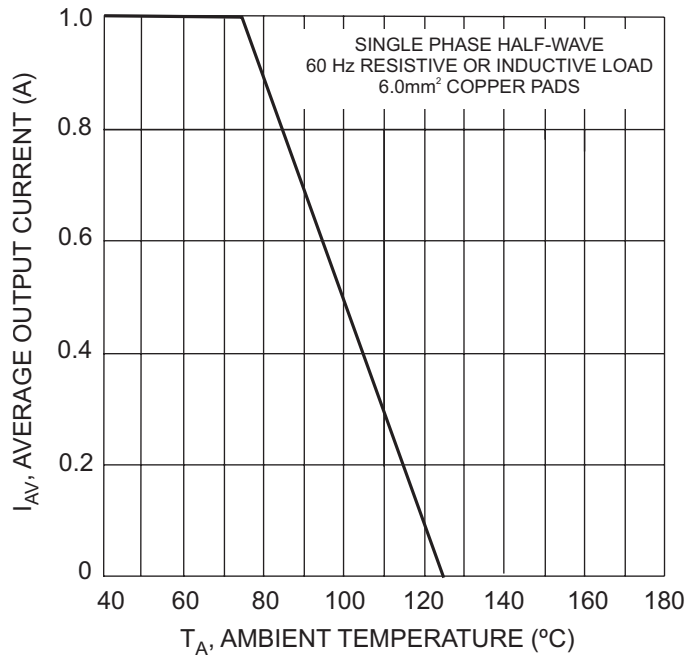


Fig. 1, Forward Current Derating Curve

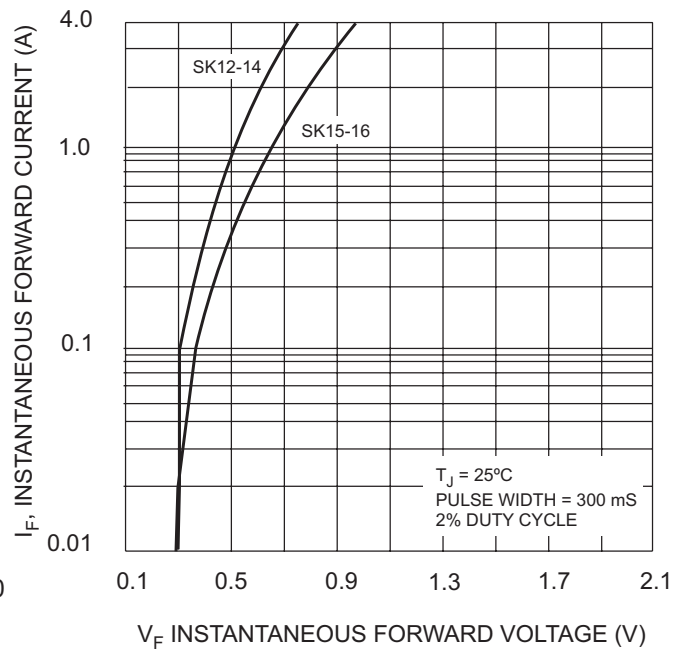


Fig. 2, Typical Forward Characteristics

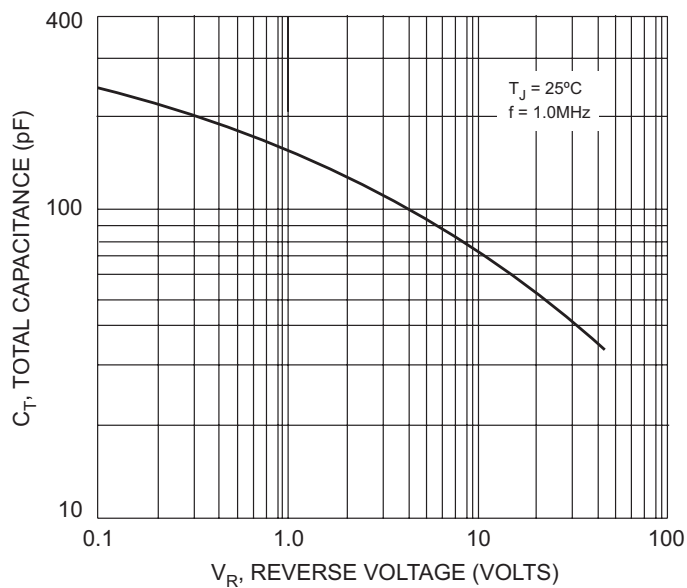


Fig. 3, Typical Total Capacitance

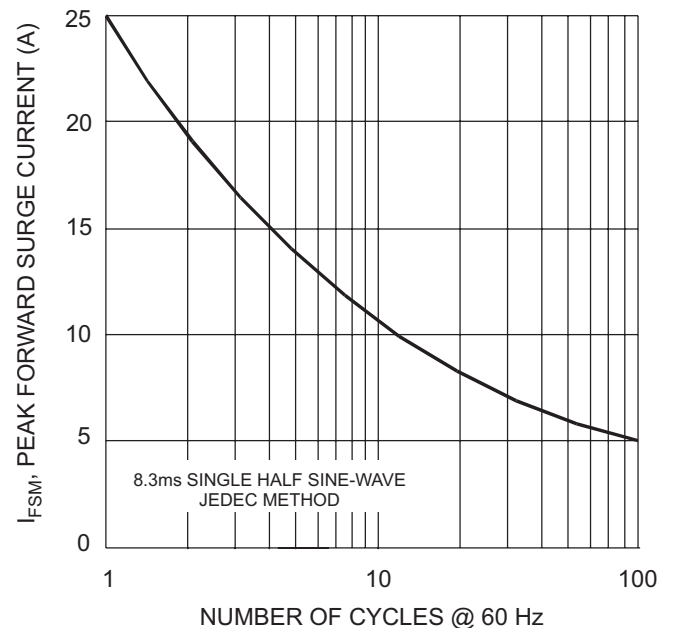


Fig. 4, Max Non-Repetitive Peak Forward Surge Current

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**Ordering Information** (Note 4)

Device	Packaging	Shipping
SK12-13	SMB	3000/Tape & Reel
SK13-13	SMB	3000/Tape & Reel
SK14-13	SMB	3000/Tape & Reel
SK15-13	SMB	3000/Tape & Reel
SK16-13	SMB	3000/Tape & Reel

- Notes:
4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
  5. For Lead Free Finish; RoHS Compliant version part numbers, please add "-F" suffix to the part numbers above. Example: SK14-13-F.

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