

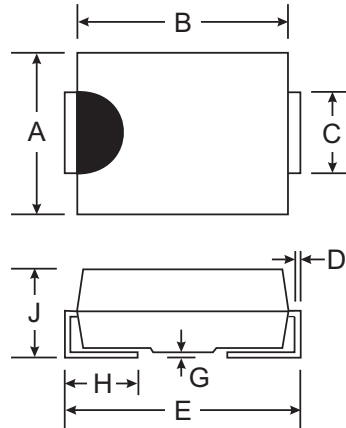
### Features

- 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

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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	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Rectified Current @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.0					A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25					A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	0.55			0.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	$I_R$				0.5 10		mA
Maximum Full Load Reverse Current Full Cycle Average @ $T_A = 75^\circ\text{C}$	$I_R$	5					mA
Maximum Thermal Resistance (See Note 1)	$R_{\theta JL}$	25					°C/W
Typical Total Capacitance (See Note 2)	$C_T$	110					pF
Operating Temperature Range	$T_J$	-65 to +125					°C
Storage Temperature Range	$T_{STG}$	-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*.

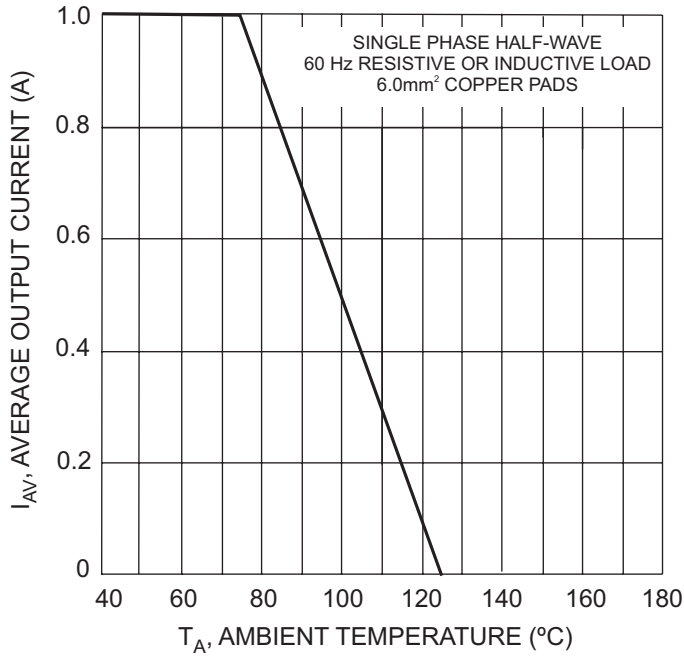


Fig. 1, Forward Current Derating Curve

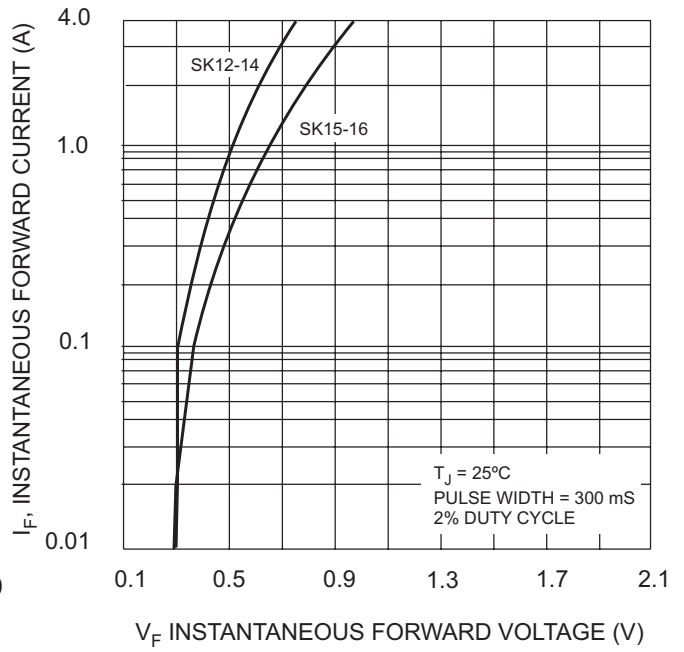


Fig. 2, Typical Forward Characteristics

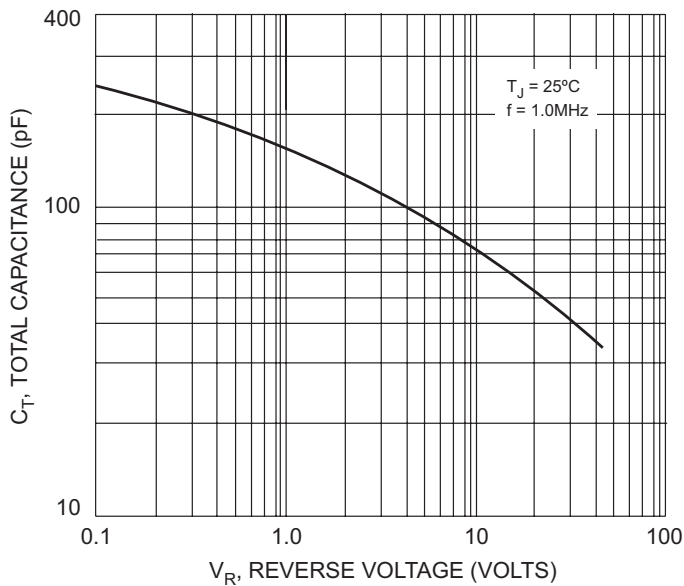


Fig. 3, Typical Total Capacitance

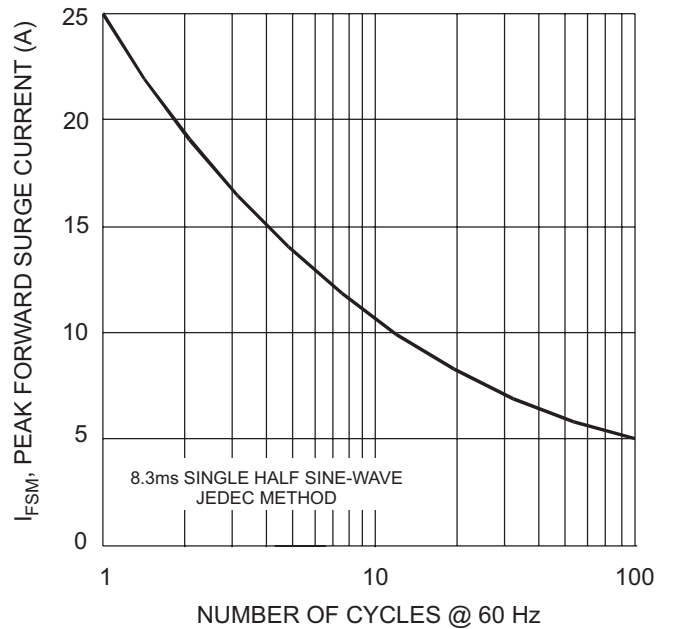


Fig. 4, Max Non-Repetitive Peak Forward Surge Current

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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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