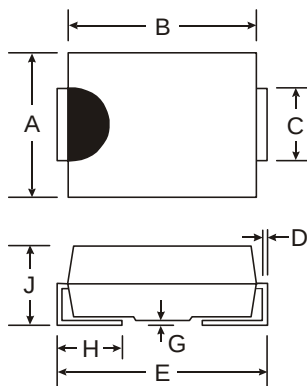


Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 200A Peak
- Ideally Suited for Automated Assembly
- **Lead Free Finish/RoHS Compliant (Note 3)**

Mechanical Data

- Case: SMC
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208 **e3**
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number & Date Code, See Page 2
- Ordering Information: See Page 2
- Weight: 0.21 grams (approximate)



SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	S8KC	S8MC	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	800	1000	V
Working Peak Reverse Voltage	V _{RWM}			
DC Blocking Voltage	V _R			
RMS Reverse Voltage	V _{R(RMS)}	560	700	V
Average Rectified Output Current @ T _T = 75°C	I _O	8.0		A
Non-Repetitive Peak Forward Surge Current, 8.3ms	I _{FSM}	200		A
Single Half Sine-Wave Superimposed on Rated Load				
Forward Voltage @ I _F = 8.0A	V _{FM}	0.985		V
Peak Reverse Current @ T _A = 25°C	I _{RM}	10		μA
Peak Reverse Current @ T _A = 125°C		250		
Typical Total Capacitance (Note 1)	C _T	40		pF
Typical Thermal Resistance, Junction to Terminal (Note 2)	R _{θJT}	10		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150		°C

- Notes:
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 2. Thermal resistance junction to terminal, device mounted on 100.5mm x 102.5mm x 1.7mm Cu plate heatsink.
 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.

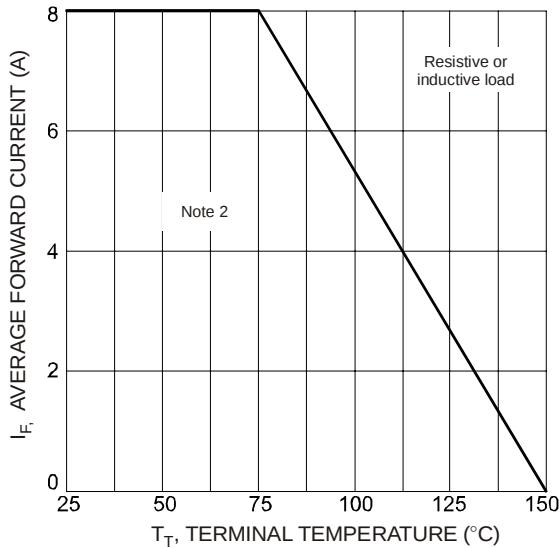


Fig. 1 Forward Current Derating Curve

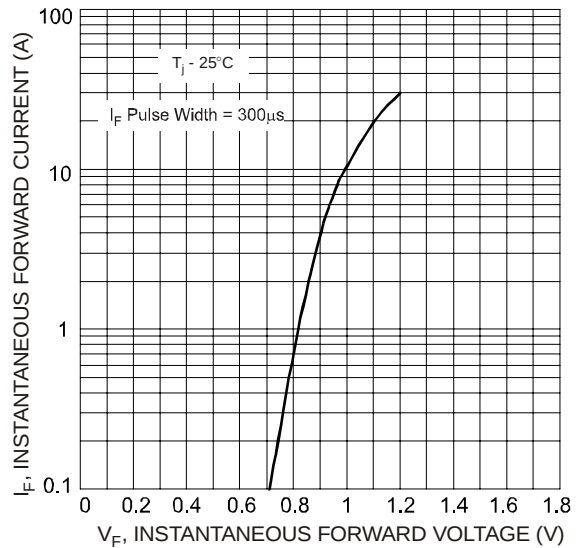


Fig. 2 Typical Forward Characteristics

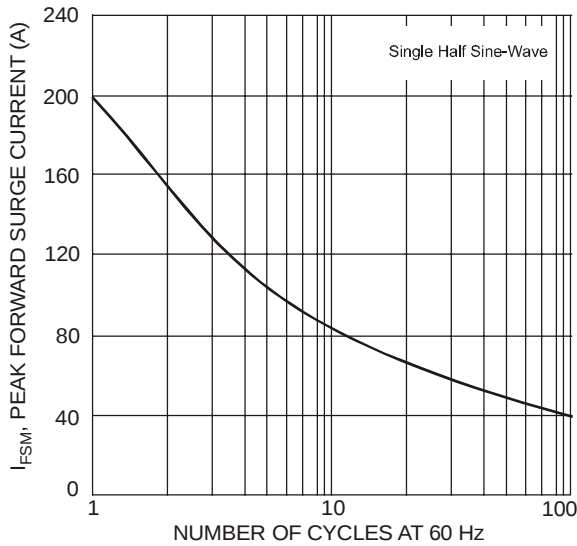


Fig. 3 Forward Surge Current Derating Curve

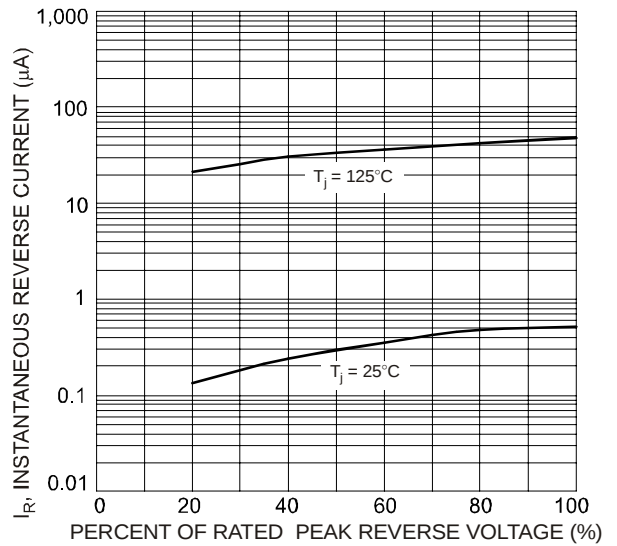


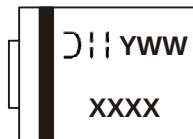
Fig. 4 Typical Reverse Characteristics

Ordering Information (Note 4)

Device*	Packaging	Shipping
S8xC-13	SMC	3000/Tape & Reel

Notes: 4. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
 *x = Device type, e.g. S8MC-13.

Marking Information



XXXX = Product type marking code, ex. S8KC
 D = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year ex: 7 for 2007
 WW = Week code 01 to 52

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