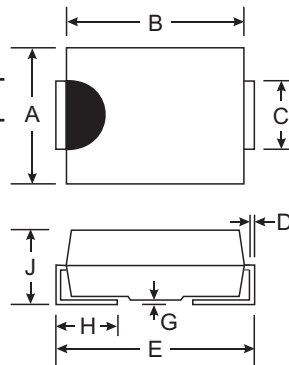


### Features

- Very Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 70A Peak
- Lead Free Finish/RoHS Compliant (Note 3)**

### Mechanical Data

- Case: SMA/SMB
- 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: See Last Page
- Approximate Weight: SMA 0.064 grams  
SMB 0.093 grams



Dim	SMA		SMB	
	Min	Max	Min	Max
A	2.29	2.92	3.30	3.94
B	4.00	4.60	4.06	4.57
C	1.27	1.63	1.96	2.21
D	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59
G	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52
J	2.01	2.30	2.00	2.40
<b>All Dimensions in mm</b>				

"A" Suffix Designates SMA Package  
"B" Suffix Designates SMB Package

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

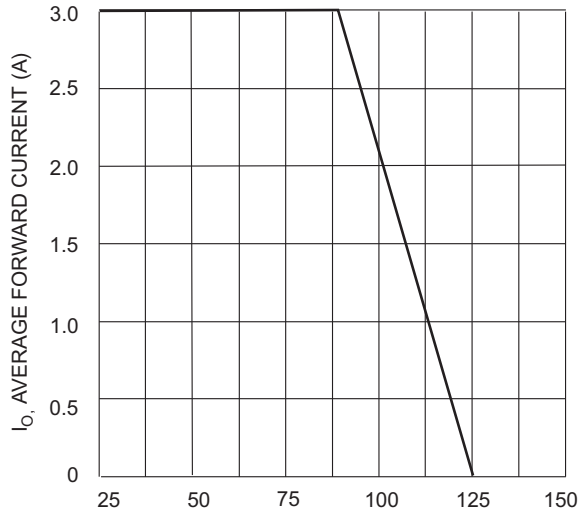
Single phase, half wave, 60Hz, resistive or inductive load unless otherwise noted.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Average Rectified Output Current (Note 1) T <sub>T</sub> = 90°C	I <sub>O</sub>	3.0	A
Non-Repetitive Peak Forward Surge Current, single sine-wave superimposed on rated load, 60Hz	I <sub>FSM</sub>	70	A
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-40 to +125	°C

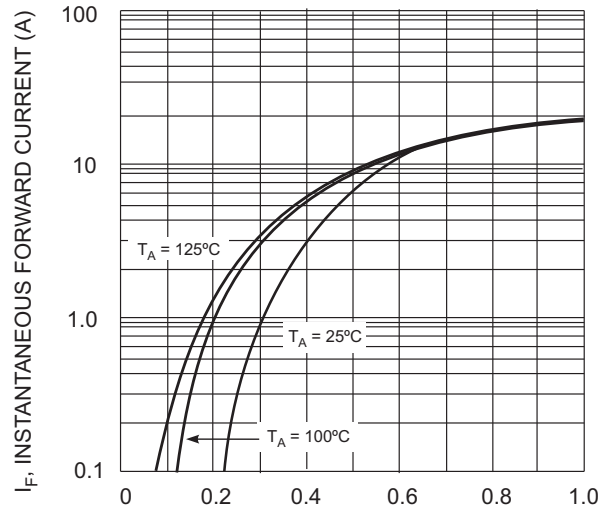
### Electrical Characteristics @ T<sub>A</sub> = 25 °C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Conditions
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	40			V	I <sub>R</sub> = 2.0mA
Forward Voltage Drop	V <sub>F</sub>		0.310	0.350 0.450	V	I <sub>F</sub> = 1.0A I <sub>F</sub> = 3.0A
Leakage Current (Note 2)	I <sub>R</sub>			150	uA	V <sub>R</sub> = 15V V <sub>R</sub> = 20V V <sub>R</sub> = 40V
				1.0 2.0	mA	
Total Capacitance	C <sub>T</sub>		180		pF	f = 1MHz, V <sub>R</sub> = 4.0VDC
Thermal Resistance, Junction to Terminal	R <sub>JT</sub>		25		°C/W	

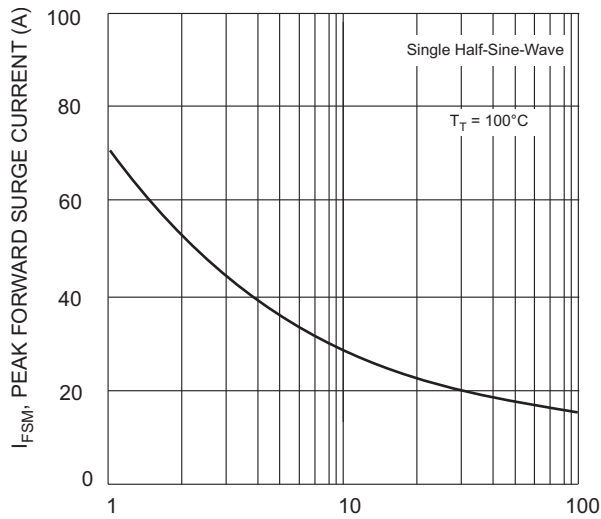
- Notes:
- When mounted on alumina substrate, 180° half sine wave.
  - Short duration test pulse used to minimize self-heating effect.
  - RoHS revision 13.2.2003. High Temperature Solder Exemption Applied, see *EU Directive Annex Note 7*.



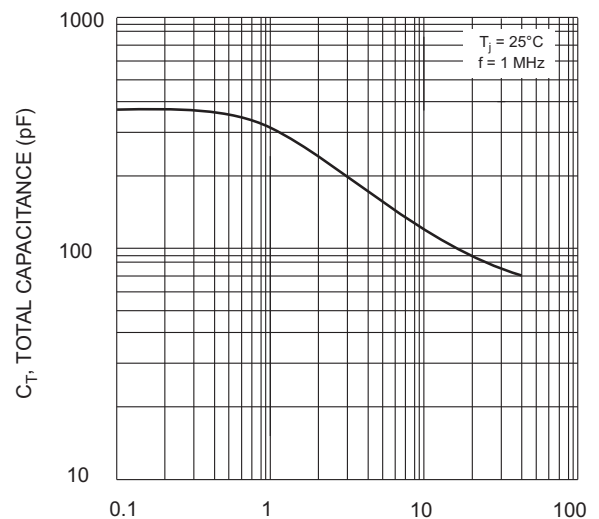
$T_T$ , TERMINAL TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



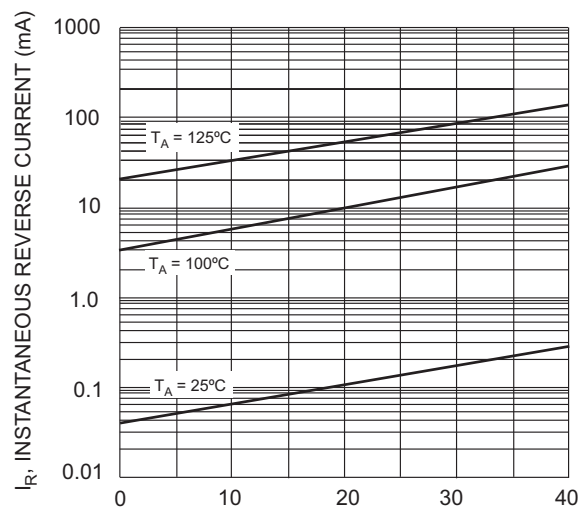
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



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



$V_R$ , DC REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance

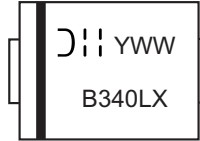


$V_R$ , INSTANTANEOUS REVERSE VOLTAGE (V)  
Fig. 5 Typical Reverse Characteristics

**Ordering Information** (Note 4)

Device	Packaging	Shipping
B340LA-13-F B340LB-13-F	SMA SMB	5000/Tape & Reel 3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**

B340LA = Product type marking code, ex: B340LA (SMA package)  
B340LB = Product type marking code, ex: B340LB (SMB package)  
D||| = Manufacturers' code marking  
YWW = Date code marking  
Y = Last digit of year ex: 2 for 2002  
WW = Week code 01 to 52

**IMPORTANT NOTICE**

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

**LIFE SUPPORT**

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.