



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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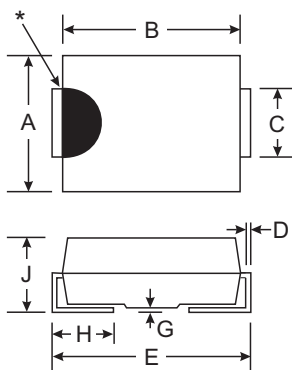


Features

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 100A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- **Lead Free Finish/RoHS Compliant (Note 4)**

Mechanical Data

- Case: SMA/SMB/SMC
- Case Material: Molded Plastic. UL Flammability Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number (See Page 3)
- Approximate Weight: SMA 0.064 grams
SMB 0.093 grams
SMC 0.21 grams



Dim	SMA		SMB		SMC	
	Min	Max	Min	Max	Min	Max
A	2.29	2.92	3.30	3.94	5.59	6.22
B	4.00	4.60	4.06	4.57	6.60	7.11
C	1.27	1.63	1.96	2.21	2.75	3.18
D	0.15	0.31	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59	7.75	8.13
G	0.10	0.20	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52	0.76	1.52
J	2.01	2.30	2.00	2.40	2.00	2.40
All Dimensions in mm						

"A" Suffix Designates SMA Package

"B" Suffix Designates SMB Package

No Suffix Designates SMC Package

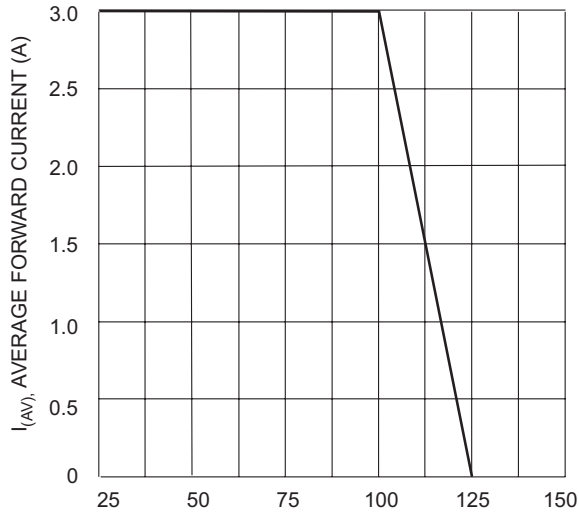
*: Note: Device may have a semicircular indentation/notch on one side of the device (as shown).

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

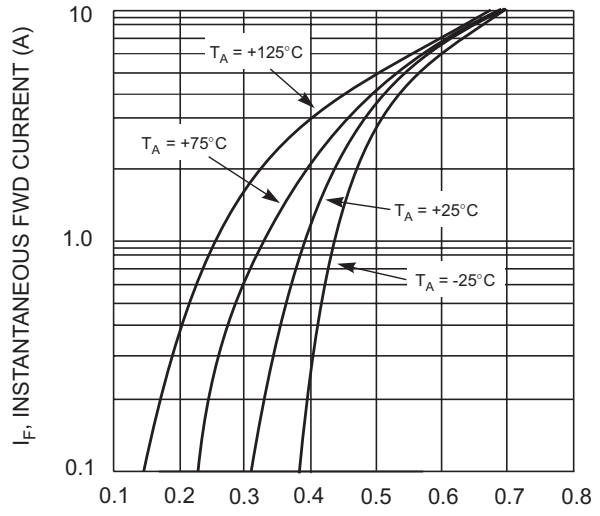
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	B320/A/B	B330/A/B	B340/A/B	B350/A/B	B360/A/B	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectified Output Current @ $T_T = 100^{\circ}C$	I_O	3.0					A
Non-Repetitive Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100					A
Forward Voltage (Note 3) @ $I_F = 3.0A$	V_{FM}	0.50			0.70		V
Peak Reverse Current @ $T_A = 25^{\circ}C$ at Rated DC Blocking Voltage (Note 3) @ $T_A = 100^{\circ}C$	I_{RM}	0.5 20					mA
Typical Capacitance (Note 2)	C_T	250					pF
Typical Thermal Resistance, Junction to Terminal	$R_{\theta JT}$	10					$^{\circ}C/W$
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	50					$^{\circ}C/W$
Operating Temperature Range	T_j	-55 to +125					$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150					$^{\circ}C$

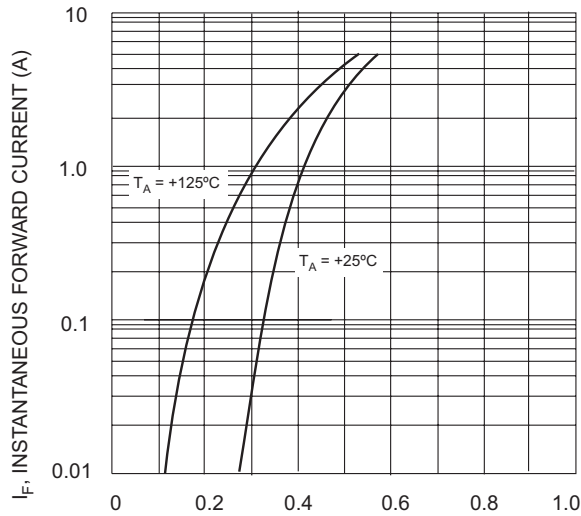
- Notes:
1. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm², 0.013 mm thick, copper pad as heat sink.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3. Short duration test pulse used to minimize self-heating effect.
 4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



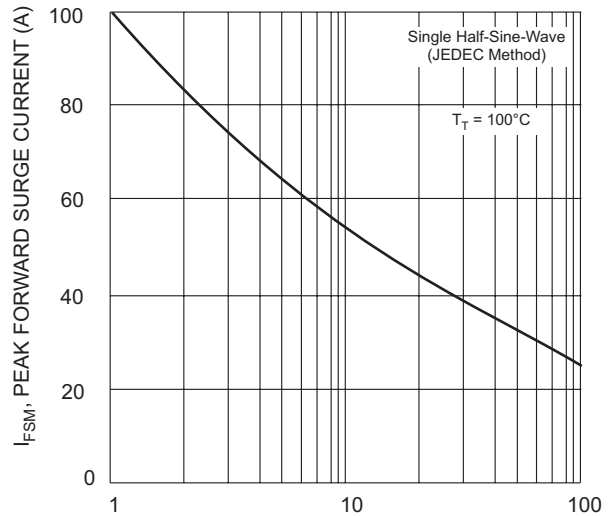
T_T , TERMINAL TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



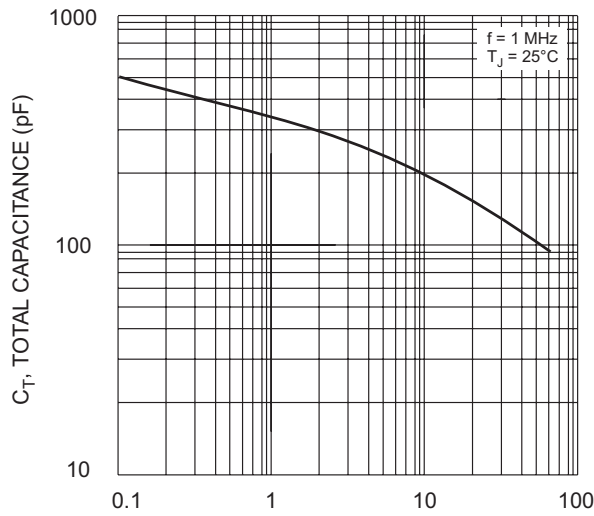
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics - B320/A/B thru B340/A/B



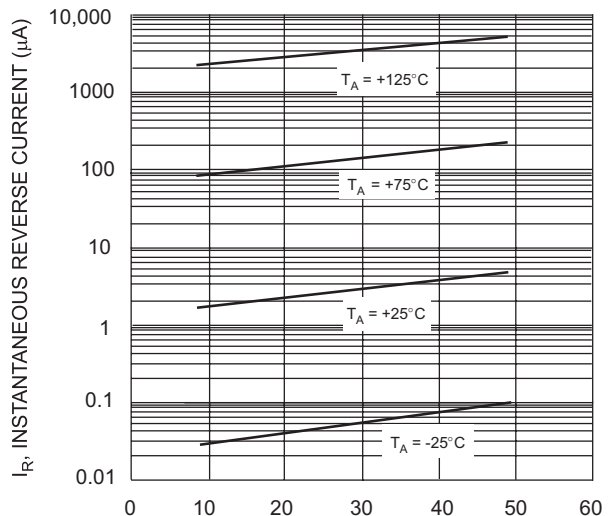
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 3 Typ. Forward Characteristics - B350/A/B thru B360/A/B



NUMBER OF CYCLES AT 60 Hz
Fig. 4 Max Non-Repetitive Peak Fwd Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 5 Typical Capacitance



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 6 Typical Reverse Characteristics, B320/A/B thru B340/A/B

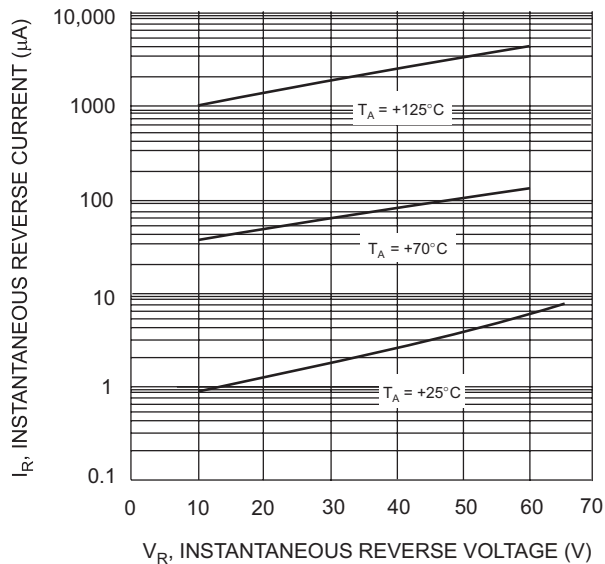


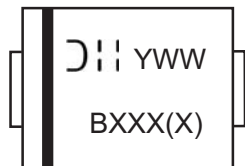
Fig. 7 Typical Reverse Characteristics, B350/A/B thru B360/A/B

Ordering Information (Note 5)

Device*	Packaging	Shipping
B3XXA-13	SMA	5000/Tape & Reel
B3XXB-13	SMB	3000/Tape & Reel
B3XX-13	SMC	3000/Tape & Reel

Notes: 5. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

* xx = Device type, e.g. B320A-13-F (SMA package); B320B-13-F (SMB package); B320-13-F (SMC Package).



BXXX = Product type marking code, ex: B320 (SMC package)
 BXXXX = Product type marking code, ex: B320A (SMA package)
 BXXX = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

Note: Device has a cathode band (as shown above) and may also have a cathode notch (as shown on Page 1).

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