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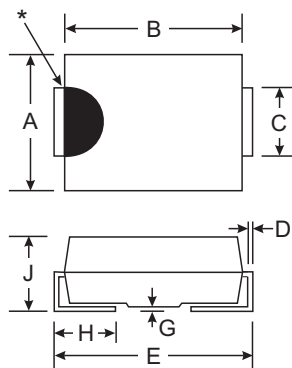
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Jameco Part Number 1538857

Features

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 125A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- **Lead Free Finish/RoHS Compliant (Note 4)**



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		

Mechanical Data

- Case: 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: 0.21 grams

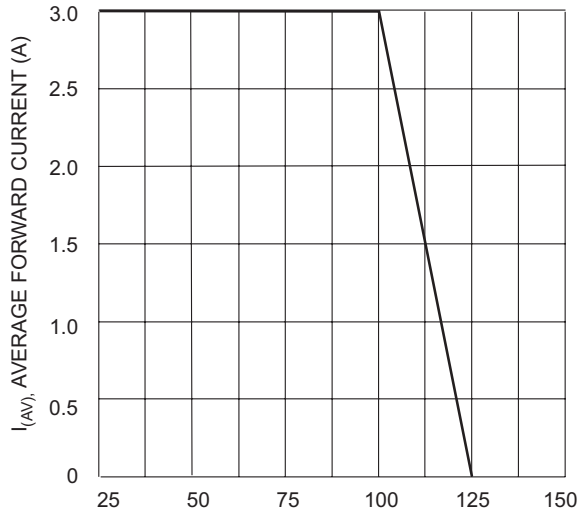
*: Note: Device may have a semicircular indentation/notch on one side of the device (as shown).

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

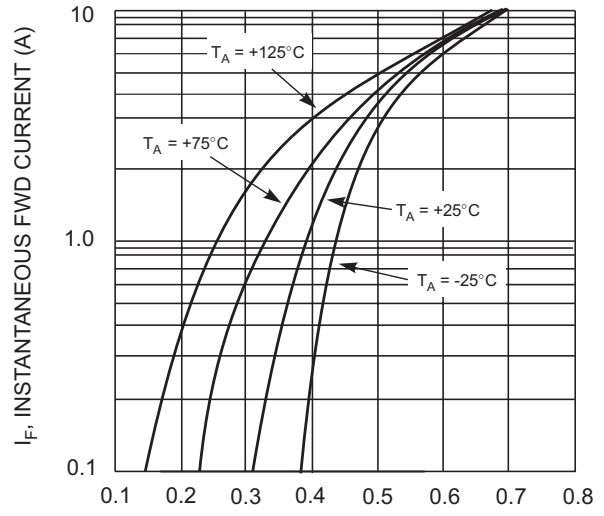
Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	B320	B330	B340	B350	B360	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 @ $T_T = 100^{\circ}\text{C}$	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}	125					A
Forward Voltage (Note 3) @ $I_F = 3.0\text{A}$	V_{FM}	0.50			0.70		V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ at Rated DC Blocking Voltage (Note 3) @ $T_A = 100^{\circ}\text{C}$	I_{RM}	0.5 20					mA
Typical Capacitance (Note 2)	C_T	200					pF
Typical Thermal Resistance, Junction to Terminal	$R_{\theta JT}$	20					$^{\circ}\text{C/W}$
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	90					$^{\circ}\text{C/W}$
Operating Temperature Range	T_j	-55 to +125					$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150					$^{\circ}\text{C}$

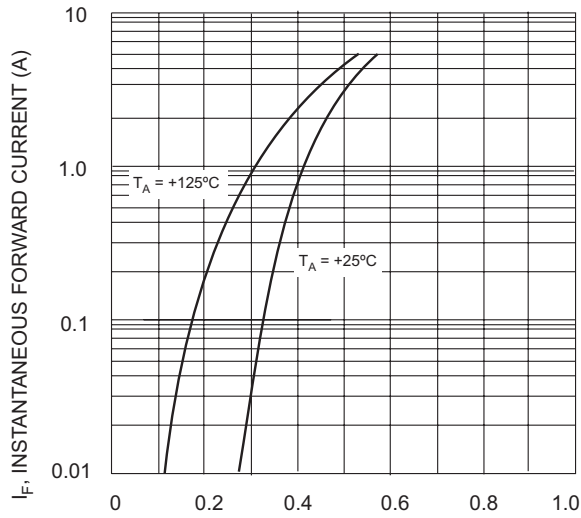
- Notes:
1. Thermal Resistance: Junction to terminal, unit mounted on on glass epoxy substrate with 2x3mm copper pad.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3. Short duration test pulse used to minimize self-heating effect.
 4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



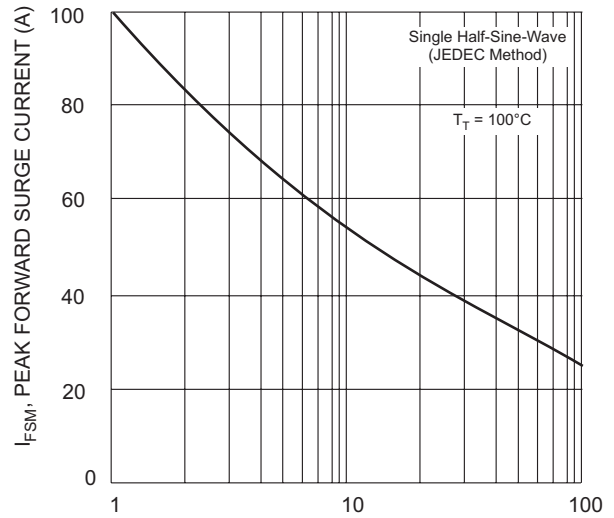
T_T , TERMINAL TEMPERATURE ($^{\circ}\text{C}$)
Fig. 1 Forward Current Derating Curve



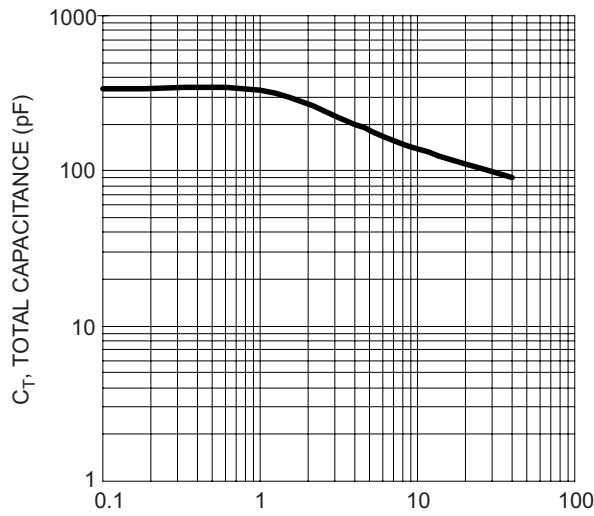
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics - B320B thru B340B



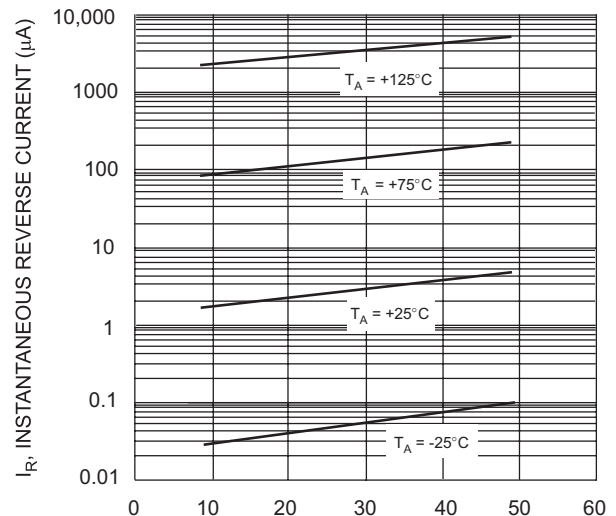
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 3 Typ. Forward Characteristics - B350B thru B360B



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, B320B thru B340B

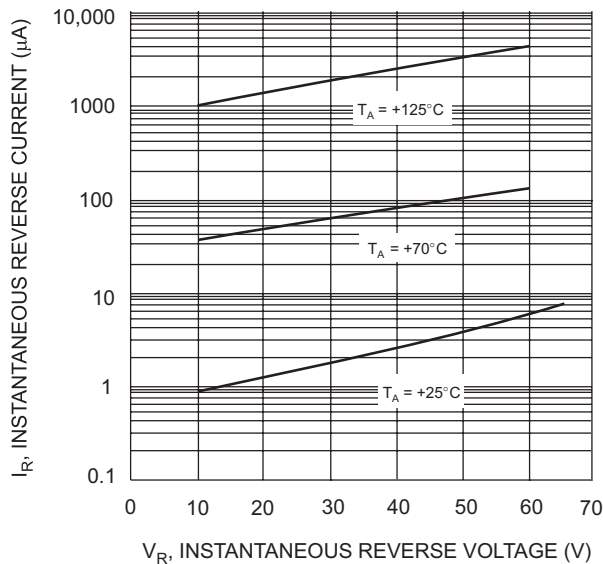


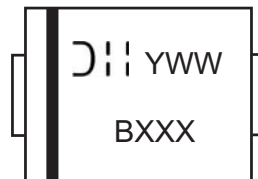
Fig. 7 Typical Reverse Characteristics, B350B thru B360B

Ordering Information (Note 5)

Device*	Packaging	Shipping
B3XX-13-F	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. B320-13-F (SMC package).



||| = 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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