



3.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automated 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 1)
- Green Molding Compound (No Halogen and Antimony) (Note 4)

Mechanical Data

- Case: SMA
- Case Material: Molded Plastic. UL Flammability Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208 @3
- · Polarity: Cathode Band
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.064 grams (approximate)





Top View

Bottom View

Maximum Ratings @T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Characteristic	Symbol	B320A	B330A	B340A	B350A	B360A	Unit
Peak Repetitive Reverse Voltage	V_{RRM}						
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	V
DC Blocking Voltage	V_R						
Average Rectified Output Current @ T _T =100°C	lo			3.0			Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}			80			Α

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal	$R_{ hetaJT}$	25	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R_{ hetaJA}$	100	°C/W
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

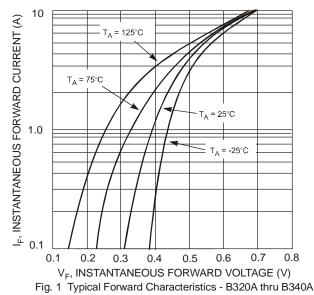
Electrical Characteristics @T_A = 25°C unless otherwise specified

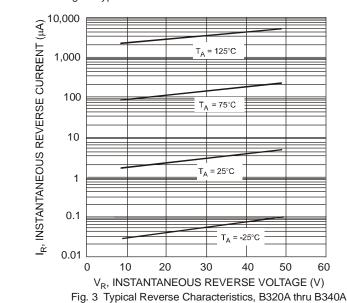
Charact	eristic	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage Drop B32	B320A, B330A, B340A	· //-	-	-	0.50	V	I _F = 3.0A, T _A = 25°C
	B350A, B360A		-	-	0.70		
Lastiana Comment (Nata 2)	I _R -	-	-	0.5	m A	@ Rated V _R , T _A = 25°C	
Leakage Current (Note 3)		-	-	20		@ Rated V _R , T _A = 100°C	
Total Capacitance		Ст	-	-	200	pF	$V_R = 4V, f = 1MHz$

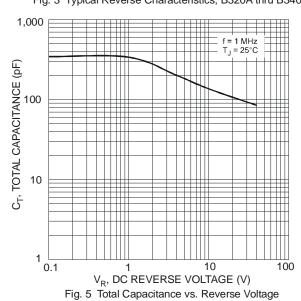
Notes:

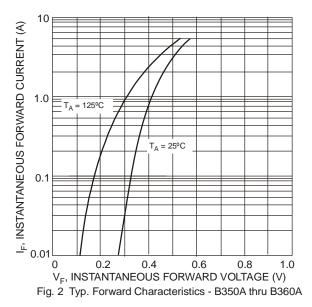
- 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. Please visit our website at http://www.diodes.com/quality/lead_free.html.
- 2. Thermal Resistance: Junction to terminal, unit mounted on glass epoxy substrate with 2x3mm copper pad.
- 3. Short duration pulse test used to minimize self-heating effect.
- 4. Product manufactured with Data Code 0924 (week 24, 2009) and newer are built with Green Molding Compound.

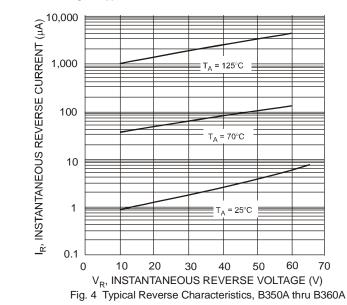


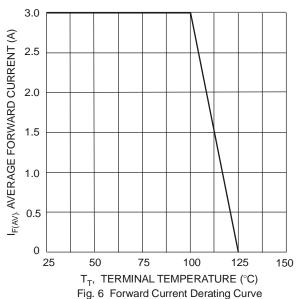




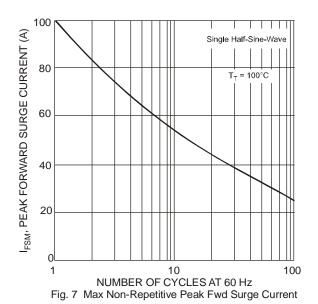












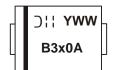
Ordering Information (Note 5)

Part Number*	Case	Packaging
B3XXA-13-F	SMA	5000/Tape & Reel

^{*} xx = Device type, e.g. B320A-13-F (SMA package).

Notes: 5. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

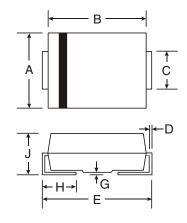
Marking Information (Note 6)



B3x0A = Product type marking code, ex: B320A
);; = Manufacturers' code marking
YWW = Date code marking
Y = Last digit of year (ex: 2 for 2002)
WW = Week code 01 to 52

Notes: 6. Device has a cathode band (as shown above) and may also have a cathode notch.

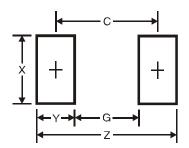
Package Outline Dimensions



SMA				
Dim	Min	Max		
Α	2.29	2.92		
В	4.00	4.60		
C	1.27	1.63		
D	0.15	0.31		
Е	4.80	5.59		
G	0.05	0.20		
H	H 0.76 1.52			
J	2.01	2.30		
All Dimensions in mm				



Suggested Pad Layout



Dimensions	Value (in mm)
Z	6.5
G	1.5
Х	1.7
Υ	2.5
С	4.0

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