



## BX38F SERIES

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE**

**80-200 Volts**

**CURRENT**

**3 Amperes**

**SMAF**

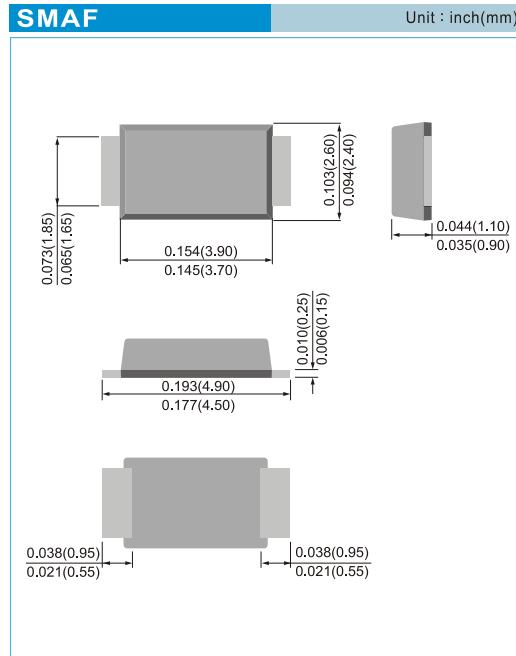
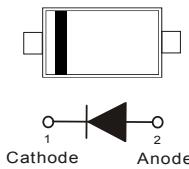
Unit : inch(mm)

#### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, high efficiency
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. (Halogen Free)

#### MECHANICAL DATA

- Case: SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight: 0.0011 ounces, 0.0328 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	BX38F	BX39F	BX310F	BX315F	BX320F	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	80	90	100	150	200	V
RMS Voltage	V <sub>RMS</sub>	56	63	70	105	140	V
DC Blocking Voltage	V <sub>R</sub>	80	90	100	150	200	V
Average Forward Current	I <sub>F(AV)</sub>			3			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>			80			A
Forward Voltage at 3A	V <sub>F</sub>		0.8		0.9		V
DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>			50			µA
Typical Junction Capacitance (V <sub>R</sub> =4V,f=1MHz)	C <sub>J</sub>		20		10	85	pF
Typical Thermal Resistance ,Junction to Ambient (Note 1) Junction to Lead (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>			150 20			°C / W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>			-55 to +150			°C

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, mini pad.  
2. Mounted on an FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area



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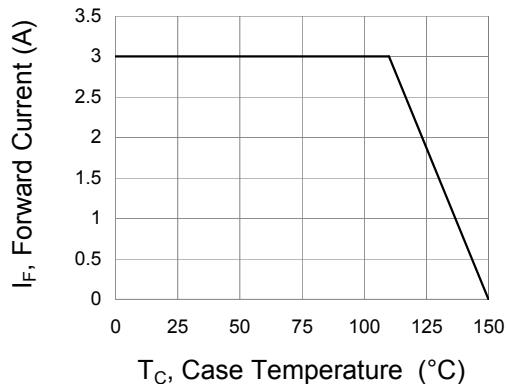


Fig.1 Forward Current Derating Curve

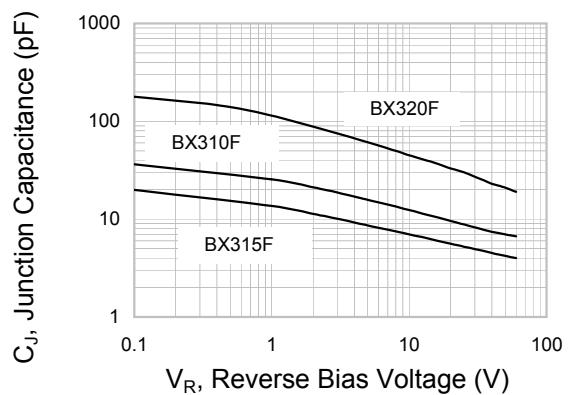


Fig.2 Typical Junction Capacitance

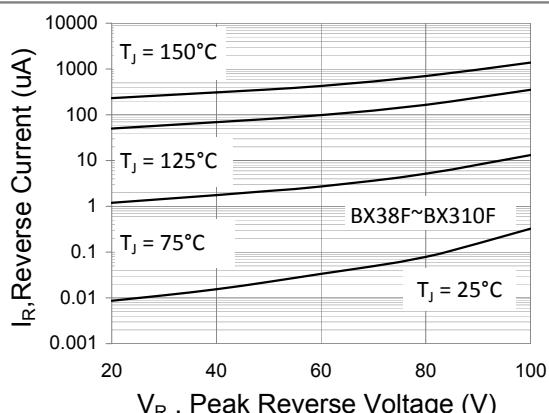


Fig.3 Typical Reverse Characteristics

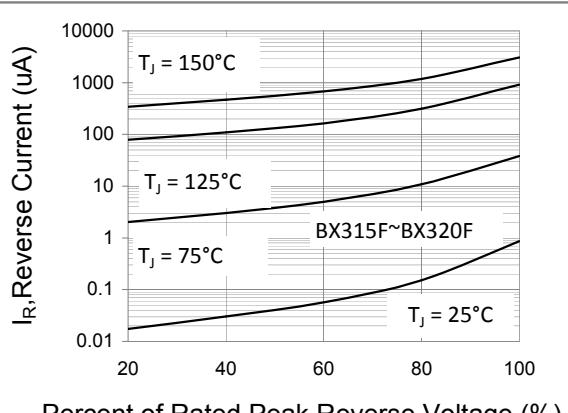


Fig.4 Typical Reverse Characteristics

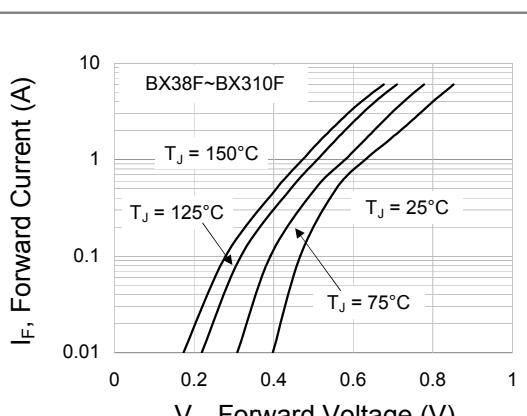


Fig.5 Typical Forward Characteristics

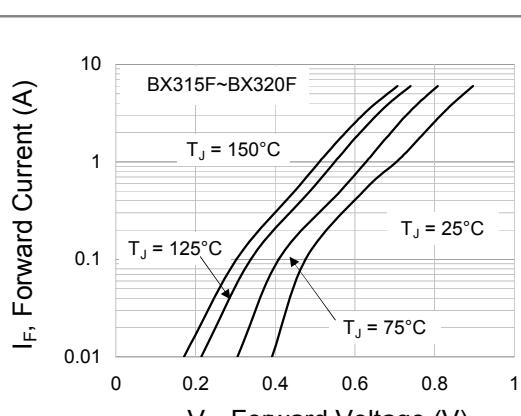
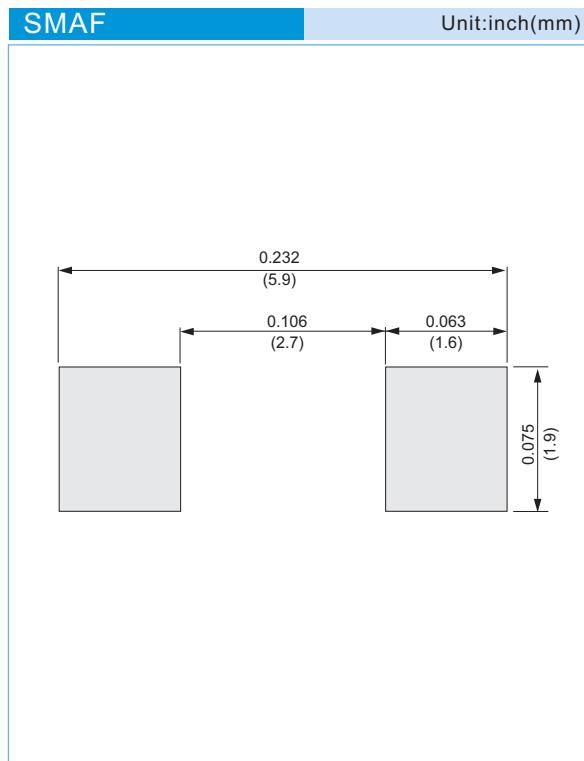


Fig.6 Typical Forward Characteristics



## BX38F SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel

### LEGAL STATEMENT

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## BX38F SERIES

For example :

RB500V-40\_R2\_00001

Part No.      |      R2      00001

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No\_packing code\_Version

BX38F\_R1\_00001

BX38F\_R2\_00001