



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE

80-200Volts

CURRENT

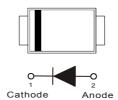
3 Amperes

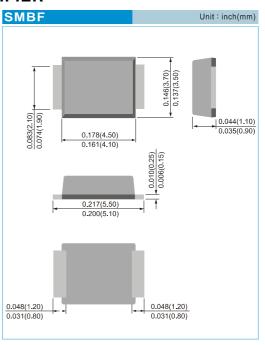
#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · For surface mounted applications
- · Low profile package
- · Built-in strain relief
- · Metal to silicon rectifier. majority carrier conduction
- · Low power loss, high efficiency
- · High surge capacity
- 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: SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity : Color band denotes cathode end





### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

PARAMETER	SYMBOL	BR38F	BR39F	BR310F	BR320F	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	80	90	100	200	V
RMS Voltage	V <sub>RMS</sub>	56	63	70	140	٧
DC Blocking Voltage	V <sub>R</sub>	80	90	100	200	٧
Average Forward Current	I <sub>F(AV)</sub>	3.0				Α
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	80				А
Forward Voltage at 3.0A	V <sub>F</sub>	0.8		0.9	V	
DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.05			mA	
Typical Junction capacitance (VR=4V, f=1MHz)	C J	120 7			70	pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 1)	$R_{_{\theta JA}}$	17 62.5			°C / W	
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +150				°C

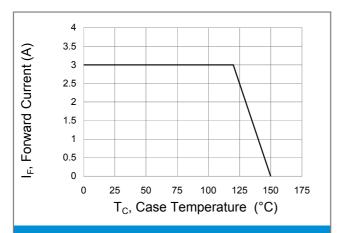
### NOTES:

1. Mounted on 48cm<sup>2</sup> FR-4 PCB.





#### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

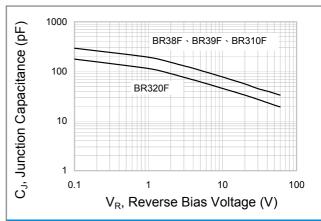


Fig.2 Typical Junction Capacitance

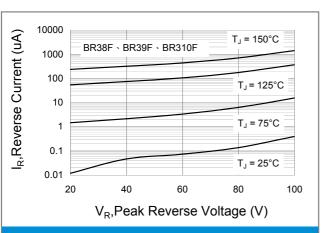


Fig.3 Typical Reverse Characteristics

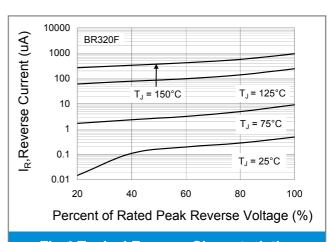
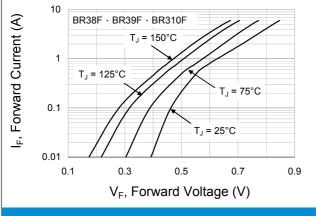
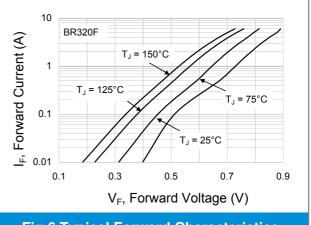


Fig.4 Typical Reverse Characteristics



**Fig.5 Typical Forward Characteristics** 

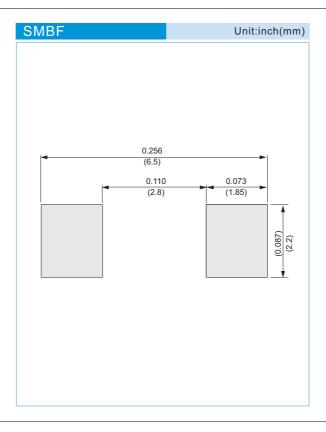


**Fig.6 Typical Forward Characteristics** 





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

Packing information

T/R - 5K per 13" plastic Reel

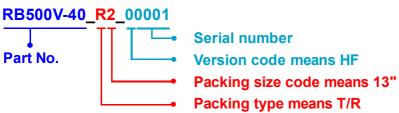




### Part No\_packing code\_Version

BR38F\_R2\_00001

### For example:



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	В	13"	2			
T/P	Т	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			





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