



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

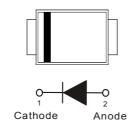
VOLTAGE 80-200 Volts CURRENT 2 Amperes SMBF

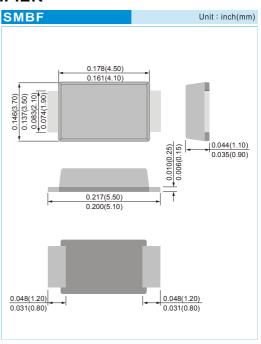
#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · For surface mounted applications
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Metal to silicon rectifier. majority carrier conduction
- · Low power loss, high efficiency
- · High surge capacity
- · Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### **MECHANICAL DATA**

- · Case: plastic molded
- 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	MB28F	MB29F	MB210F	MB215F	MB220F	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>	2					Α
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)		I <sub>FSM</sub>	50					Α
Forward Voltage at 2.0A		V <sub>F</sub>	0.8 0.9			.9	V	
DC Reverse Current at Rated DC Blocking Voltage  T <sub>J</sub> =25°C		I <sub>R</sub>	50				μА	
Typical Junction capacitance	V <sub>R</sub> =4V,1MHz	C		90		70	50	pF
Typical Thermal Resistance ,Junction to Lead (Note 1)  Junction to Ambient (Note 2)		$R_{\theta JL} R_{\theta JA}$	30 135				°C / W	
Operating Junction Temperature and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150					οС

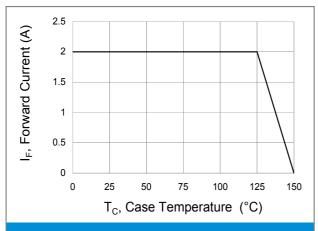
### NOTES:

- $1. \\ Mounted on an FR4 PCB, single-sided copper, with 100 cm^2 copper pad area.$
- 2. Mounted on an FR4 PCB, single-sided copper, mini pad.

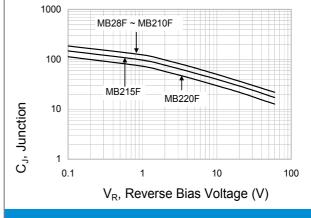




### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

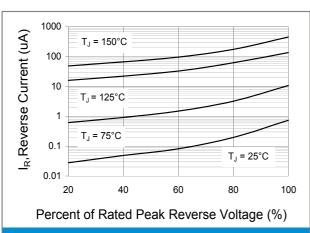
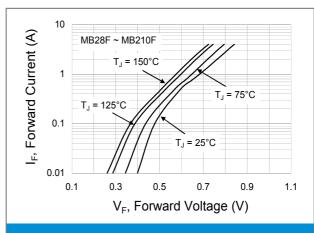
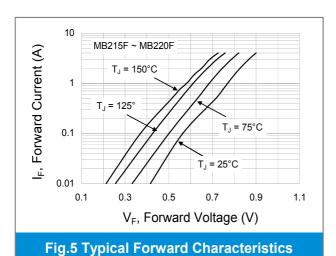


Fig.3 Typical Reverse Characteristics



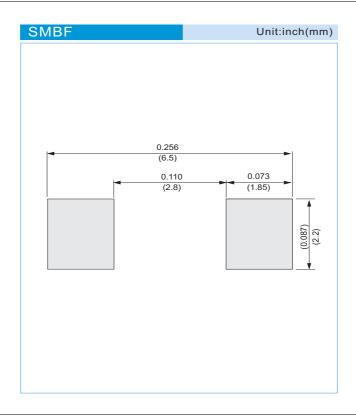
**Fig.4 Typical Forward Characteristics** 







### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

Packing information

T/R - 5K per 13" plastic Reel





## Part No\_packing code\_Version

MB28F\_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			
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	26mm	X						
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y						
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U						
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D						





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