



### SURFACE MOUNT ULTRA FAST RECTIFIER

VOLTAGE 50-600 Volts CURRENT 2 Amperes

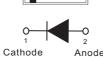
#### **FEATURES**

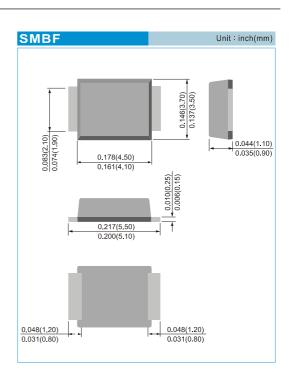
- · For surface mounted applications
- · Low profile package
- · Built-in strain relief
- · Easy pick and place
- · Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · Glass passivated junction
- Lead free in comply with EU 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	UF2AF	UF2BF	UF2DF	UF2GF	UF2JF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
DC Blocking Voltage	V <sub>R</sub>	50	100	200	400	600	V
Average Forward Current	I <sub>F(AV)</sub>	2					А
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	50				А	
Forward Voltage at 2.0A	V <sub>F</sub>		1		1.4	1.7	V
DC Reverse Current at Rated T <sub>J</sub> =25°C	I <sub>R</sub>	1				μΑ	
Typical Junction capacitance VR=4V,f=1MHz	CJ	37		27	18	pF	
Typical Thermal Resistance ,Junction to Lead (Note 1)  Junction to Ambient (Note 2)	$R_{_{\theta JA}}$	20 135			°C / W		
Reverse Recovery Time (I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A,I <sub>rr</sub> =0.25A)	T <sub>rr</sub>	50 100				100	ns
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150				°C	

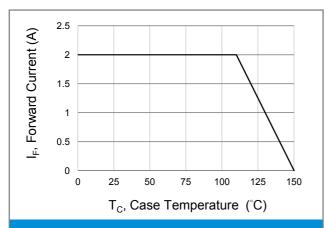
NOTES: 1. Mounted on an FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area

2. Mounted on an FR4 PCB, single-sided copper, mini pad.

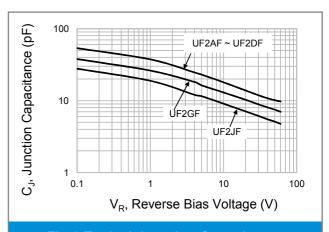




### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

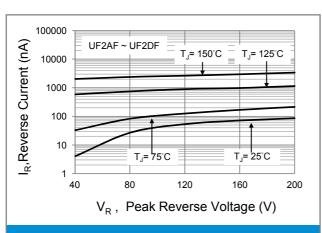


Fig.3 Typical Reverse Characteristics

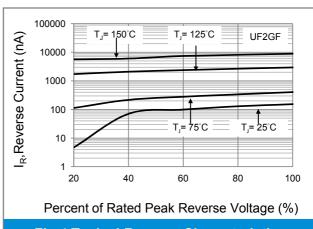


Fig.4 Typical Reverse Characteristics

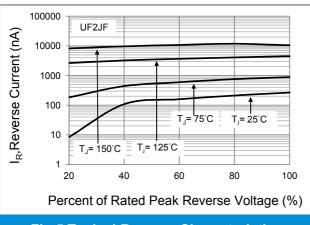
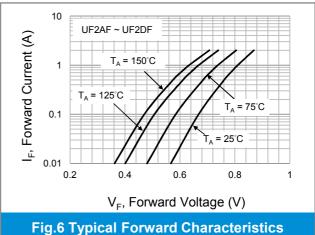


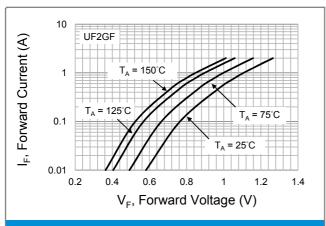
Fig.5 Typical Reverse Characteristics



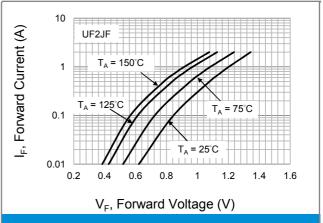




### **RATING AND CHARACTERISTIC CURVES**



**Fig.7 Typical Forward Characteristics** 

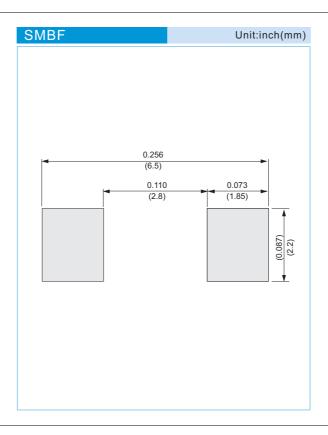


**Fig.8 Typical Forward Characteristics** 





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

· Packing information

T/R - 5K per 13" plastic Reel

### **LEGAL STATEMENT**

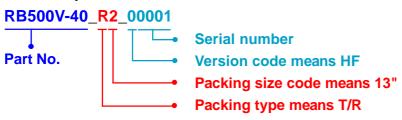
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### For example:



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	Α	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	Х					
TRR	S	52mm	Y					
TRL	L	PBCU	U					
FORMING	F	PBCD	D					

### Part No\_packing code\_Version

UF2AF\_R2\_00001