

# UF2AF SERIES

## 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-0
- Glass passivated junction
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

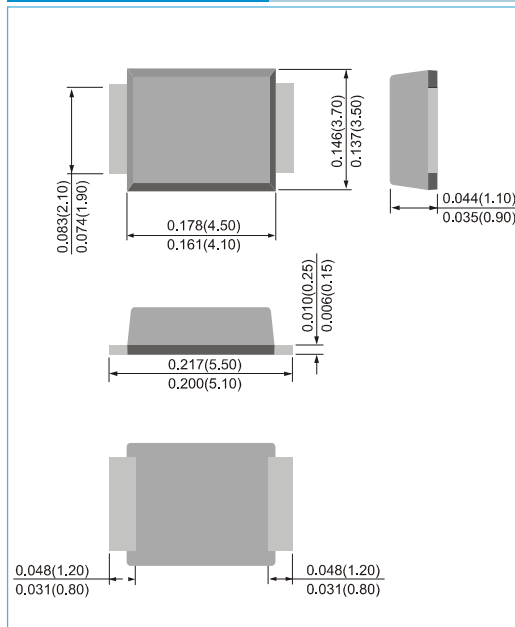
### MECHANICAL DATA

- 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



### SMBF

Unit : inch(mm)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=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					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	50					A
Forward Voltage at 2.0A	V <sub>F</sub>	1			1.4	1.7	V
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	1					μA
Typical Junction capacitance V <sub>R</sub> =4V,f=1MHz	C <sub>J</sub>	37			27	18	pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	R <sub>θJL</sub> R <sub>θJA</sub>	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	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.

## UF2AF SERIES

### RATING AND CHARACTERISTIC CURVES

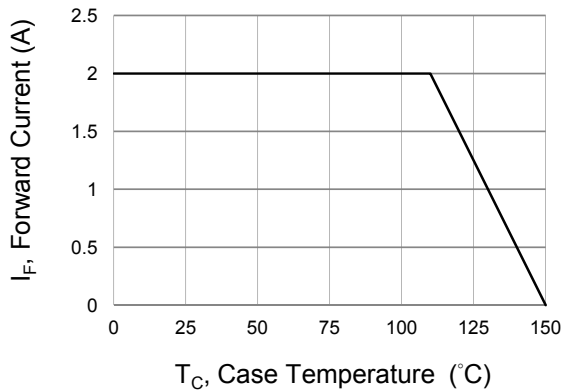


Fig.1 Forward Current Derating Curve

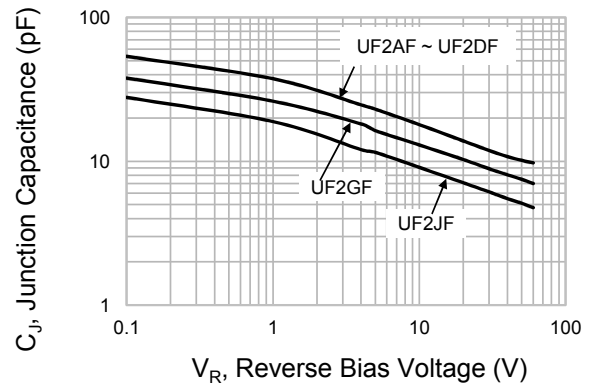


Fig.2 Typical Junction Capacitance

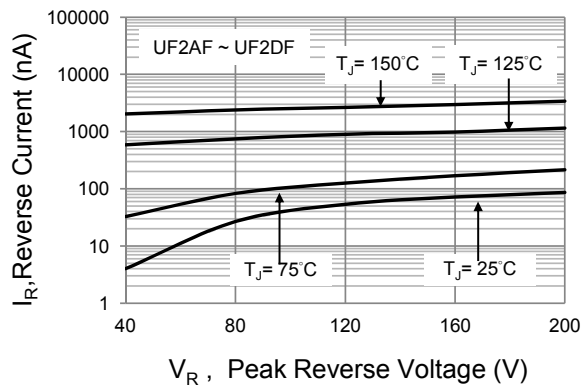


Fig.3 Typical Reverse Characteristics

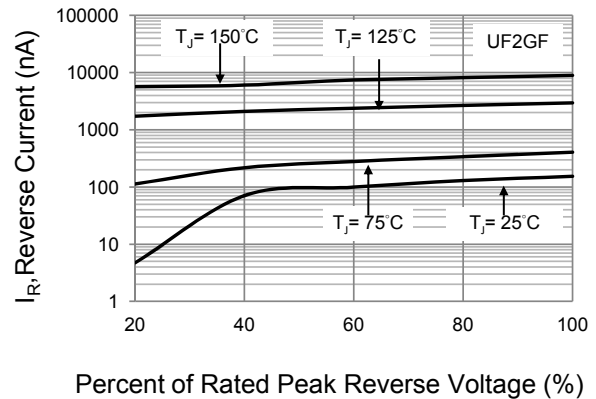


Fig.4 Typical Reverse Characteristics

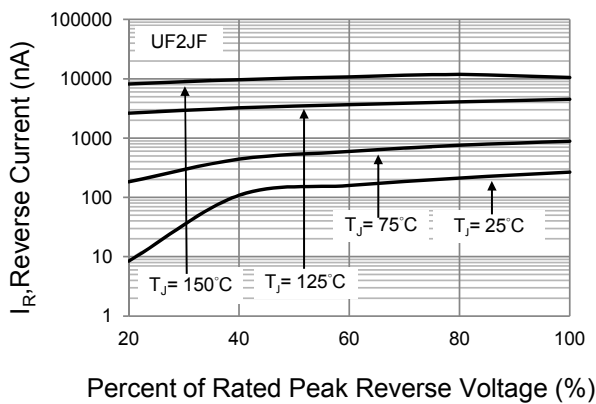


Fig.5 Typical Reverse Characteristics

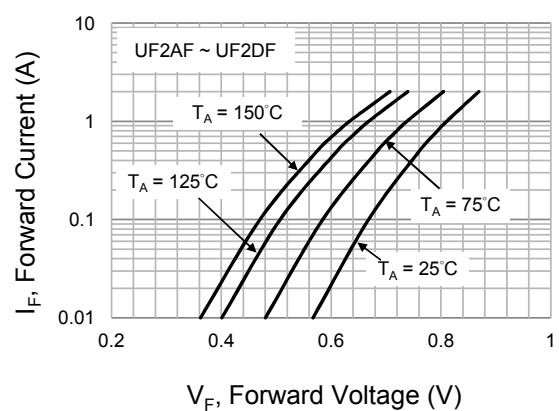


Fig.6 Typical Forward Characteristics

## UF2AF SERIES

### RATING AND CHARACTERISTIC CURVES

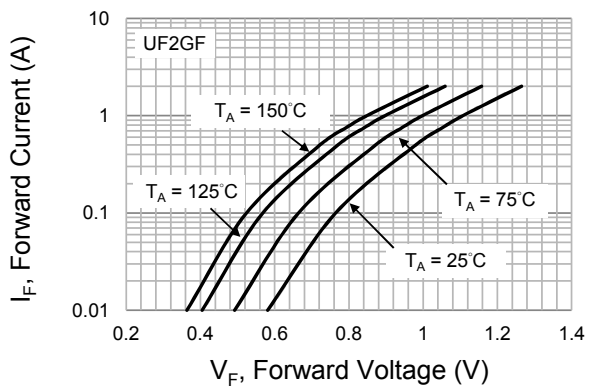


Fig.7 Typical Forward Characteristics

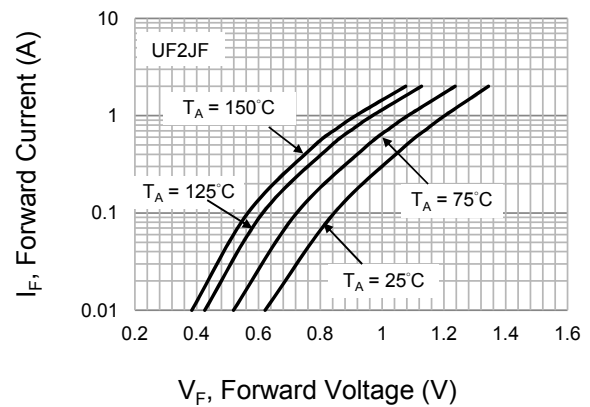
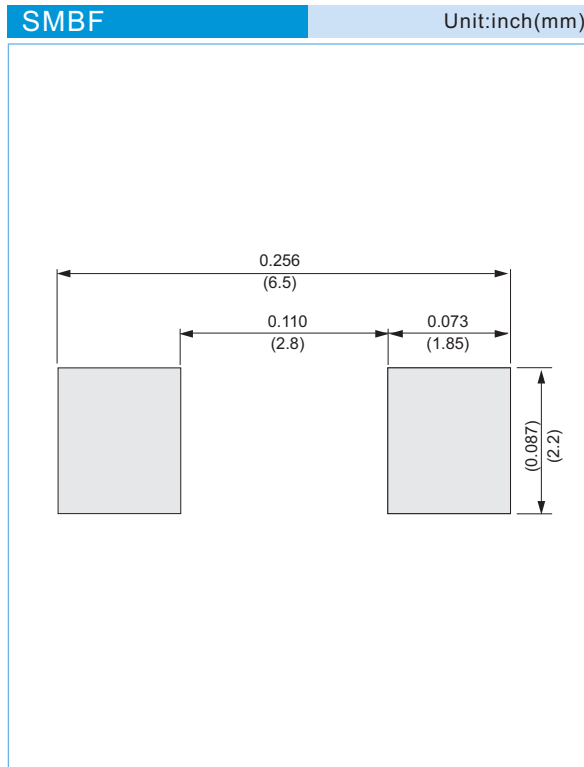


Fig.8 Typical Forward Characteristics

# UF2AF SERIES

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel

## UF2AF SERIES

Part No\_packing code\_Version

UF2AF\_R2\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	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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