



# SURFACE MOUNT ULTRA FAST RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 2.0 A

### **Features**

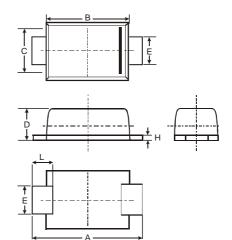
- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Ultra-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

## **Mechanical Data**

- Case:SMBF , Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.0018 ounces, 0.05 grams







SMBF								
Dim	Min	Max	Тур					
Α	5.45	5.55	5.50					
В	4.27	4.33	4.30					
С	3.57	3.63	3.60					
D	1.32	1.38	1.35					
Е	1.96	2.00	1.98					
H	0.019	0.021	0.20					
Ĺ	0.73	0.77	0.75					
All Dimensions in mm								

## Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	UF2AF	UF2BF	UF2DF	UF2GF	UF2JF	UF2KF	UF2MF	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> = 55°C	lo	2.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50						А	
Forward Voltage @I <sub>F</sub> = 2.0A	VFM	1.0 1.4				1	.7	٧	
	IRM	10 50							μΑ
Reverse Recovery Time (Note 1)	trr	50 75						nS	
Typical Junction Capacitance (Note 2)	Cj	20						pF	
Typical Thermal Resistance (Note 3)	R <i>θ</i> JL	50						°C/W	
Operating and Storage Temperature Range	Tj, TSTG	-50 to +150						°C	

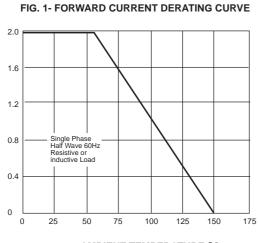
Note: 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ . See figure 5.

- 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
- 3. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

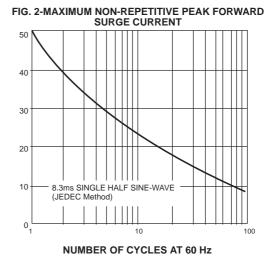


## RATINGS AND CHARACTERISTIC CURVES UF2AF THRU UF2MF









AMBIENT TEMPERATURE, °C

FIG. 3-TYPICAL INSTANTANEOUS FORWARD

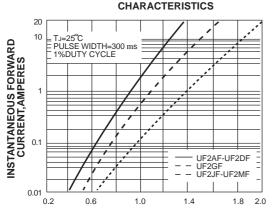
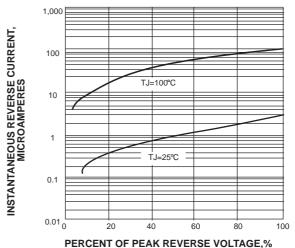
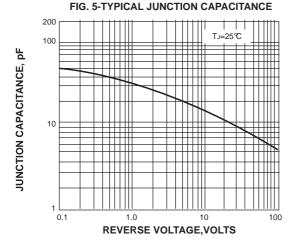


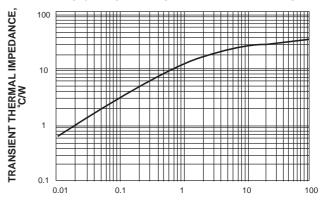
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE,







t,PULSE DURATION,sec.