

## UF2A THRU UF2K

**SURFACE MOUNT ULTRAFAST RECTIFIER**  
**VOLTAGE - 50 TO 800 Volts    CURRENT - 2.0 Amperes**

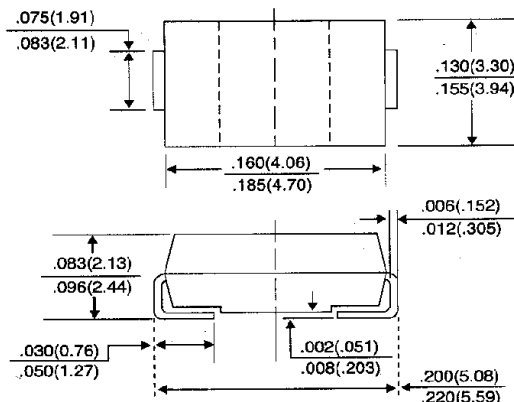
### FEATURES

- 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
- High temperature soldering:  
260°C/10 seconds at terminals

### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic  
 Terminals: Solder plated solderable per MIL-STD-750, Method 2026  
 Polarity: Indicated by cathode band  
 Standard Packaging: 12mm tape (EIA-481)  
 Weight: 0.003 ounces, 0.093 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load.  
 For capacitive load, derate current by 20%

	SYMBOLS	UF2A	UF2B	UF2D	UF2G	UF2J	UF2K	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	Volts	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	Volts	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	Volts	
Maximum Average Forward Rectified Current, TL = 90°C	IAV	2.0						Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TA = 55°C	IFSM	50.0						Amps	
Maximum Instantaneous Forward Voltage at 2.0A	VF	1.0		1.4		1.7		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C TA = 100°C	IR	10.0 200						µA	
Maximum Reverse Recovery Time (NOTE 1) TJ = 25°C	TRR	50.0				100.0			nS
Typical Junction Capacitance (NOTE 2)	CJ	28						pf	
Maximum Thermal Resistance (NOTE 3)	RθJL	20.0						°C/W	
Operating and Storage Temperature Range	TJ, TSTG	-50 to +150						°C	

**NOTES:**

1. Reverse Recovery Test Conditions: IF = 0.5A, IR = 1.0A, Irr = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.
3. 8.0mm<sup>2</sup> (.013mm thick) land areas.

RATING AND CHARACTERISTIC CURVES  
UF2A THRU UF2K

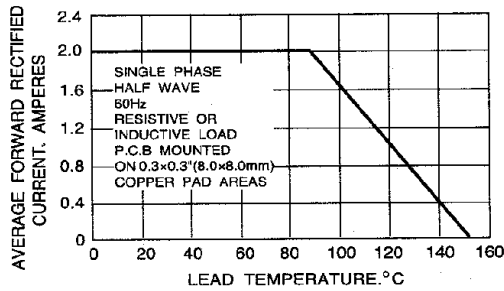


FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

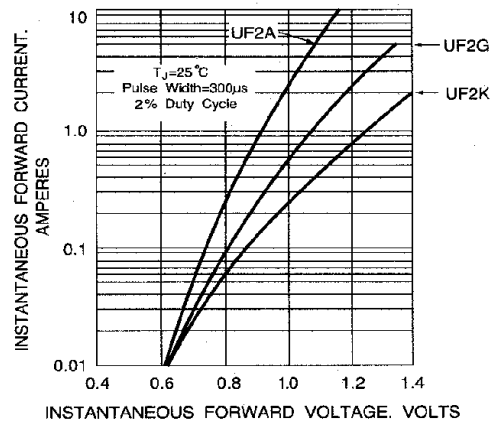


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

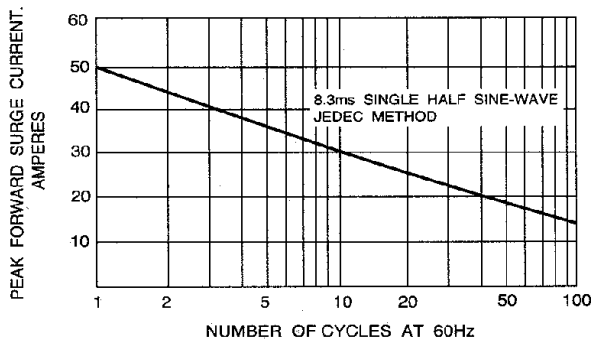


FIG. 3 - MAXIMUM FORWARD SURGE CURRENT

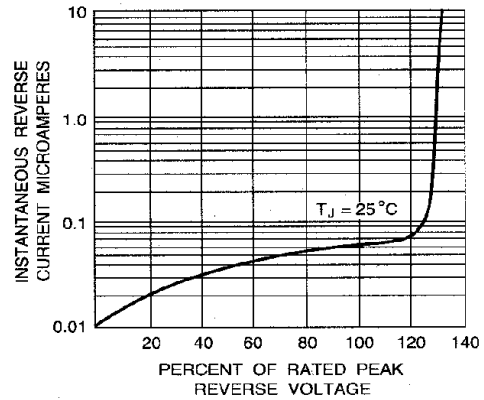


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

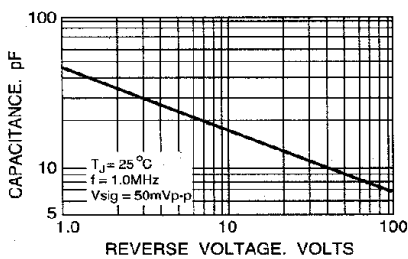


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

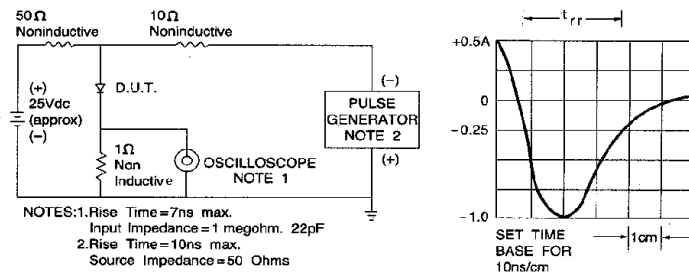


FIG. 6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM