

# 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-0
- Glass passivated junction
- High temperature soldering:  
260 °C/10 seconds at terminals

### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

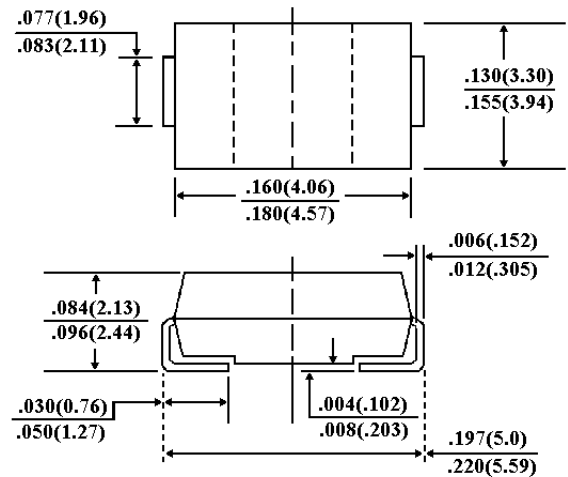
Terminals: Solder plated, solderable per MIL-STD-750,  
Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 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	$V_{RRM}$	50	100	200	400	600	800	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, at $T_L=90$ °C	$I_{(AV)}$	2.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method) $T_A=55$ °C	$I_{FSM}$	50.0						Amps
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.0		1.4		1.7		Volts
Maximum DC Reverse Current $T_A=25$ °C At Rated DC Blocking Voltage $T_A=100$ °C	$I_R$	10.0 200						µg A
Maximum Reverse Recovery Time (Note 1) $T_J=25$ °C	$T_{RR}$	50.0				100.0		nS
Typical Junction capacitance (Note 2)	$C_J$	28						pF
Maximum Thermal Resistance (Note 3)	$R_{\theta KJL}$	20.0						°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-50 to +150						°C

### NOTES:

1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$
2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts
3.  $8.0mm^2$  (.013mm thick) land areas

# RATING AND CHARACTERISTIC CURVES

## UF2A THRU UF2K

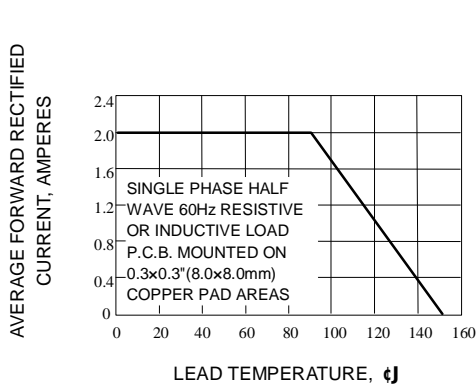


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

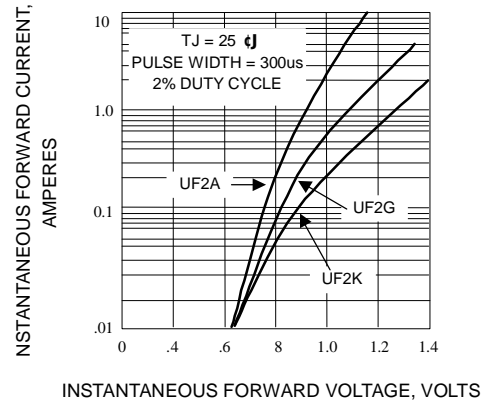


Fig. 2- TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

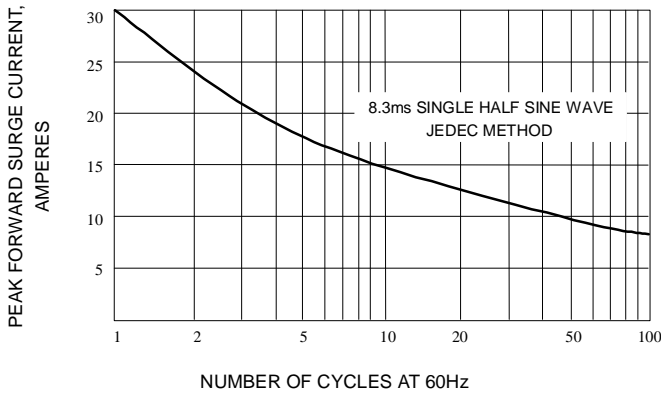


Fig. 3- MAXIMUM FORWARD SURGE CURRENT

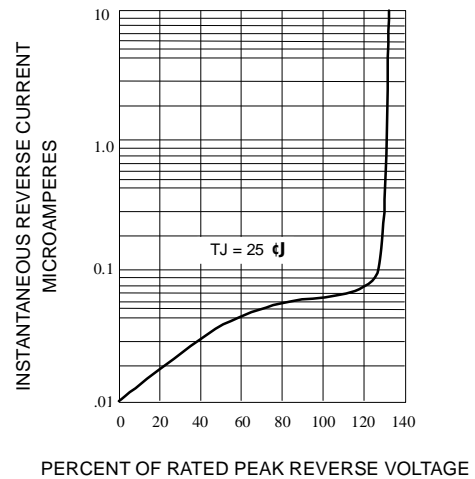


Fig. 4- TYPICAL REVERSE CHARACTERISTICS

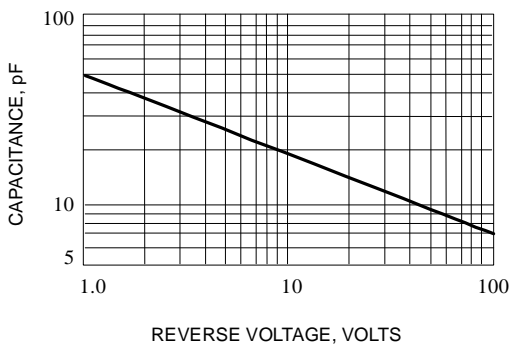


Fig. 5- TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

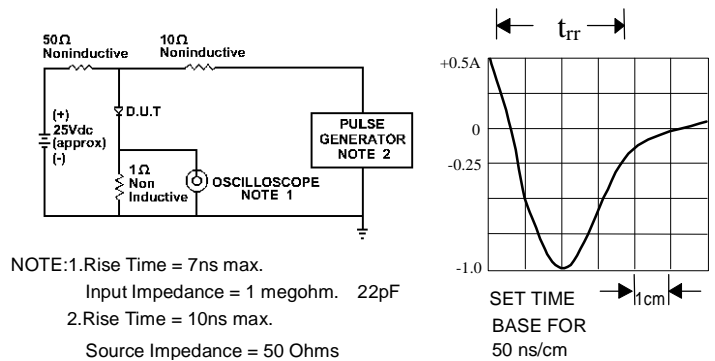


Fig. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM