



# 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

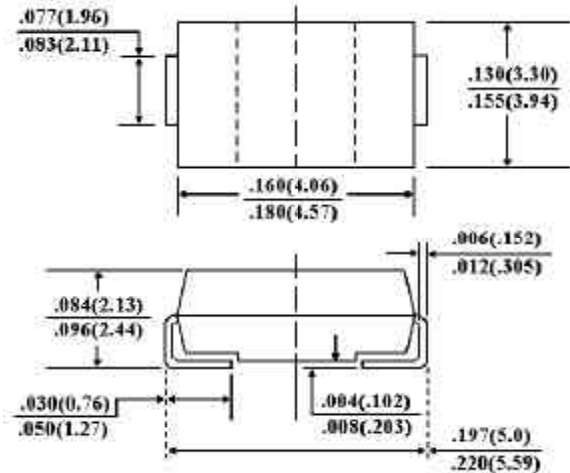
Terminals: Solder plated, solderable per MIL-STD-750,  
Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 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 <sub>RRM</sub>	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, at T <sub>L</sub> =90 ºC	I <sub>(AV)</sub>	2.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method) T <sub>A</sub> =55 ºC	I <sub>FSM</sub>	50.0						Amps
Maximum Instantaneous Forward Voltage at 2.0A	V <sub>F</sub>	1.0			1.4	1.7		Volts
Maximum DC Reverse Current T <sub>A</sub> =25 ºC	I <sub>R</sub>	10.0						µgA
At Rated DC Blocking Voltage T <sub>A</sub> =100 ºC		200						
Maximum Reverse Recovery Time (Note 1) T <sub>J</sub> =25 ºC	T <sub>RR</sub>	50.0				100.0		nS
Typical Junction capacitance (Note 2)	C <sub>J</sub>	28						pF
Maximum Thermal Resistance (Note 3)	R <sub>θKJL</sub>	20.0						ºC/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150						ºC

## NOTES:

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

RATING AND CHARACTERISTIC CURVES  
UF2A THRU UF2K

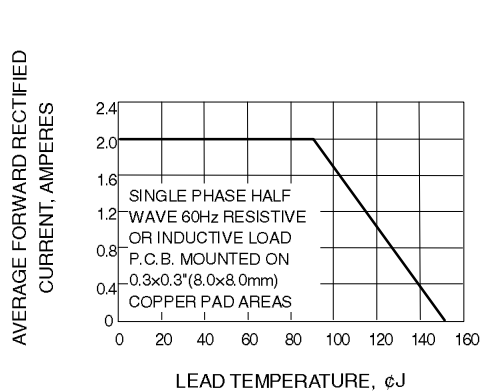


Fig. 1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

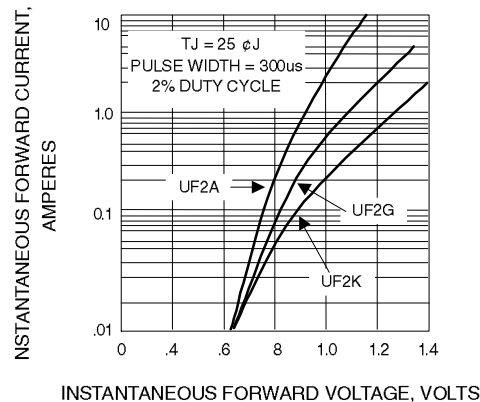


Fig. 2-TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

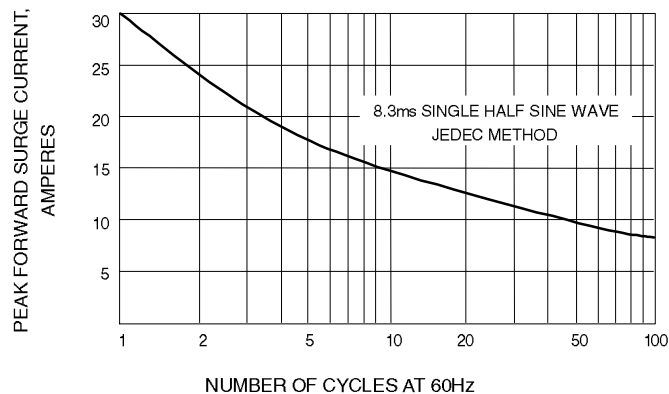


Fig. 3-MAXIMUM FORWARD SURGE CURRENT

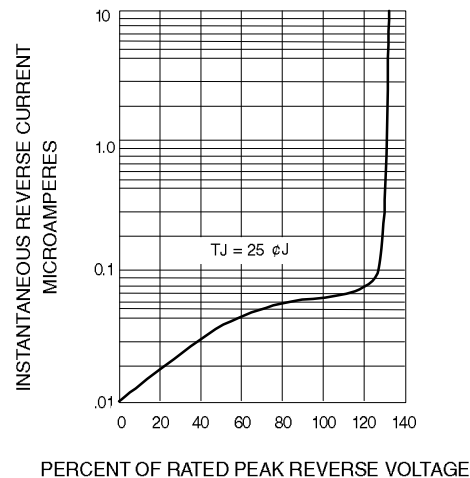


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

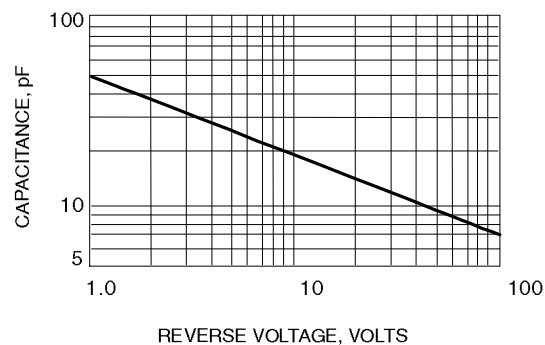


Fig. 5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

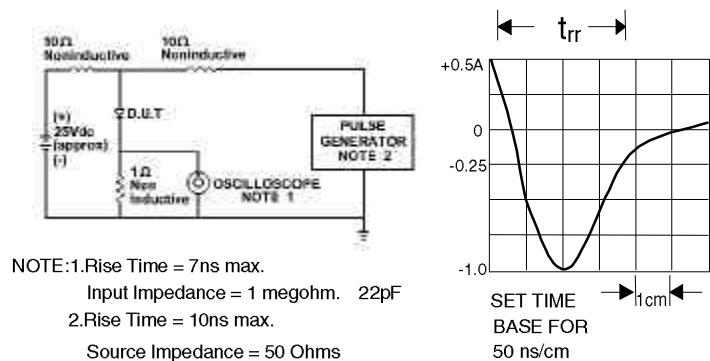


Fig. 6-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM