



DATA SHEET

SEMICONDUCTOR

UF2A~UF2M

**SURFACE MOUNT REVERSE VOLTAGE - 50 to 1000 Volts
ULTRA FAST RECTIFIERS FORWARD CURRENT - 2.0 Ampere**



FEATURES

- Glass passivated chip
- Ultra fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.003 ounces, 0.093 grams

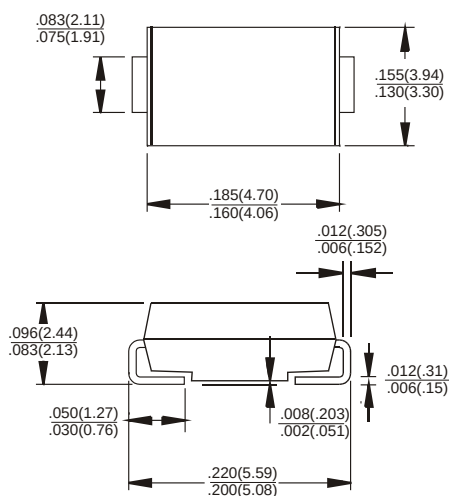
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

SMB/DO-214AA Unit:inch(mm)



CHARACTERISTICS	SYMBOL	UF2A	UF2B	UF2D	UF2G	UF2J	UF2K	UF2M	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TL =75 °C	I(AV)	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	IFSM	50							A
Maximum forward Voltage at 1.0A DC	VF	1.0			1.3	1.5	1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25 °C @TJ =100°C	IR	5 100							uA
Maximum Reverse Recovery Time (Note 1)	TRR	50				75			ns
Typical Junction Capacitance (Note 2)	CJ	20				10			pF
Typical Thermal Resistance (Note 3)	RθJL	30							
Operating Temperature Range	TJ	-55 to +150							
Storage Temperature Range	TSTG	-55 to +150							

NOTES : 1.Reverse Recovery Test Conditions :IF=0.5A,IR=1.0A,IRR=0.25A.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance junction to Lead.

RATING AND CHARACTERISTIC CURVES

UF2A~UF2M

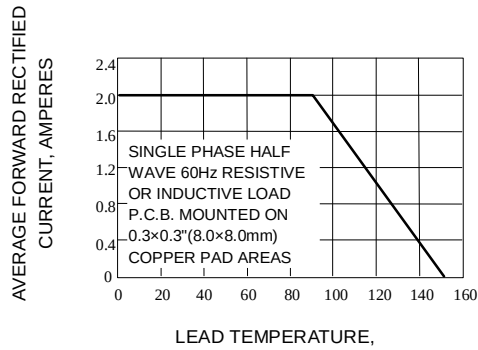


Fig. 1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

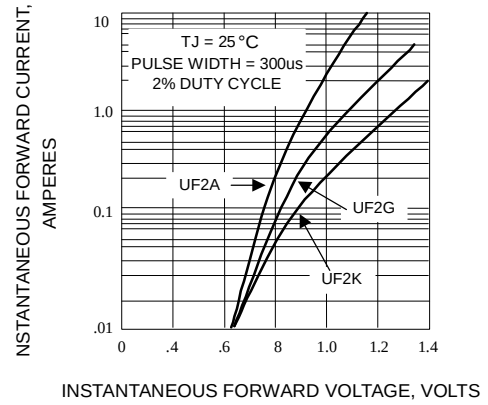


Fig. 2-TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

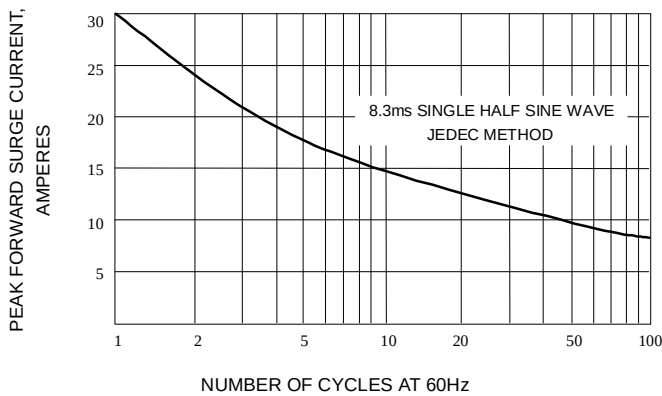


Fig. 3-MAXIMUM FORWARD SURGE CURRENT

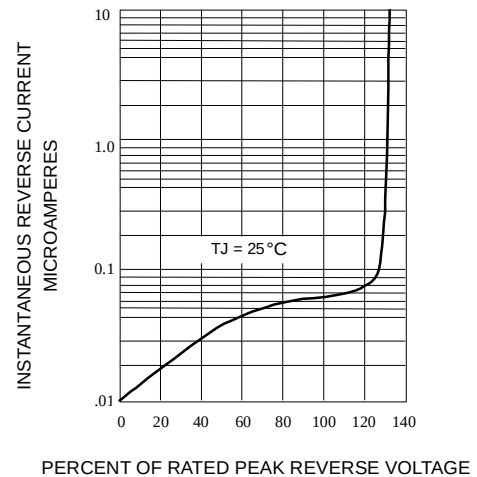


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

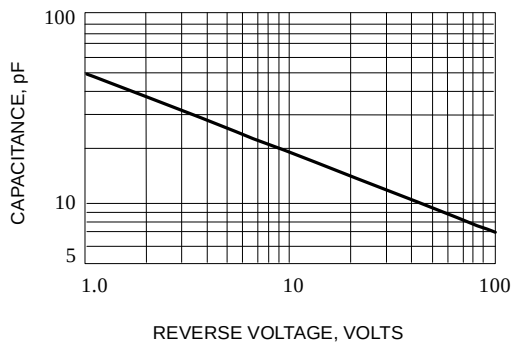


Fig. 5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

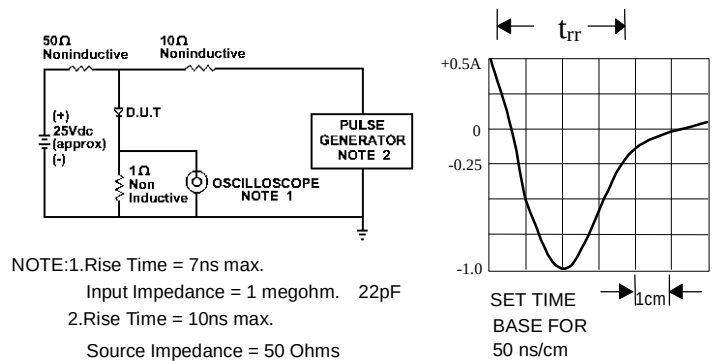


Fig. 6-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM