



DATA SHEET

UF1A~UF1K

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

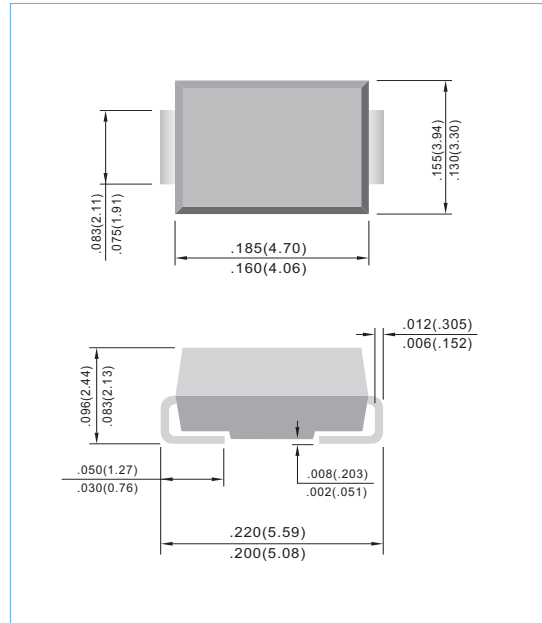
SMB/DO-214AA Unit: inch (mm)

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
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	V
Maximum Average Forward Current .375" (9.5mm) lead length at T _L =100°C	I _{AV}	1.0						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30						A
Maximum Forward Voltage at 1.0A	V _F	1.0		1.4		1.7		V
Maximum DC Reverse Current at T _A =25°C Rated DC Blocking Voltage T _A =100°C	I _R	10.0 100						uA
Typical Junction capacitance (Note 2)	C _J	17						pF
Typical Thermal Resistance(Note 3)	R _{θJL}	30						°C / W
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50				100		ns
Operating Junction 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 V_r = 4.0 volts.
 3. 8.0 mm² (.013mm thick) land areas.



RATING AND CHARACTERISTIC CURVES

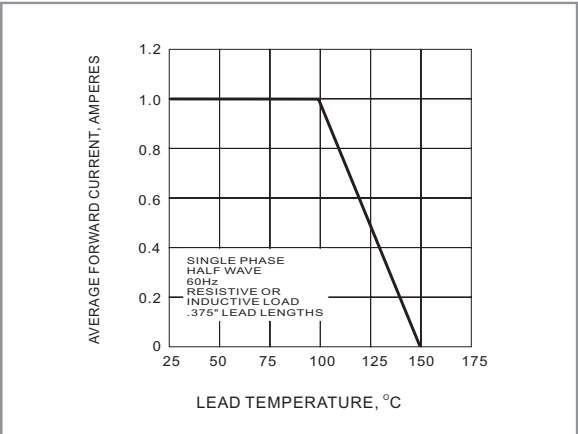


Fig.1 FORWARD CURRENT DERATING CURVE

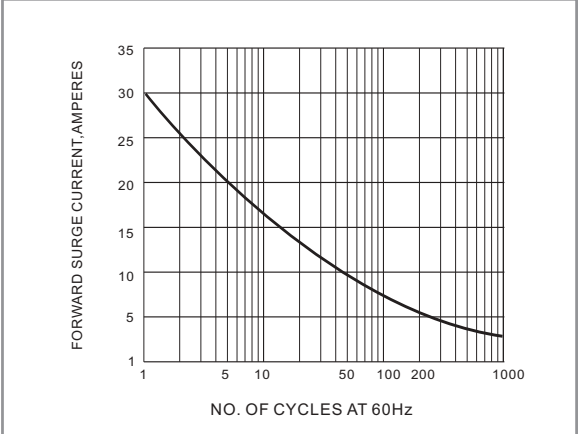


Fig.2 PEAK FORWARD SURGE CURRENT

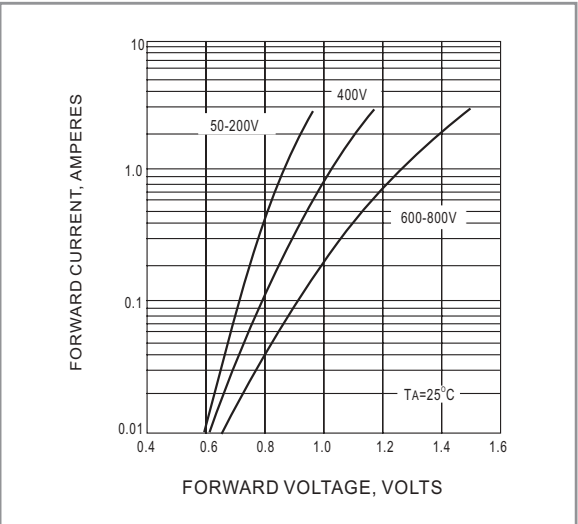


Fig.3 FORWARD CHARACTERISTICS

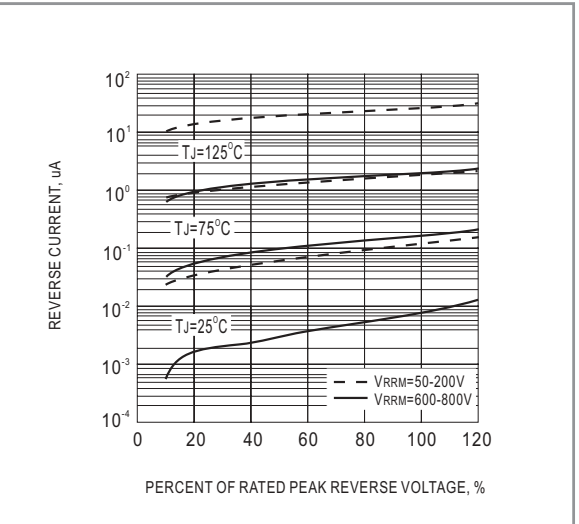


Fig.4 TYPICAL REVERSE CHARACTERISTICS

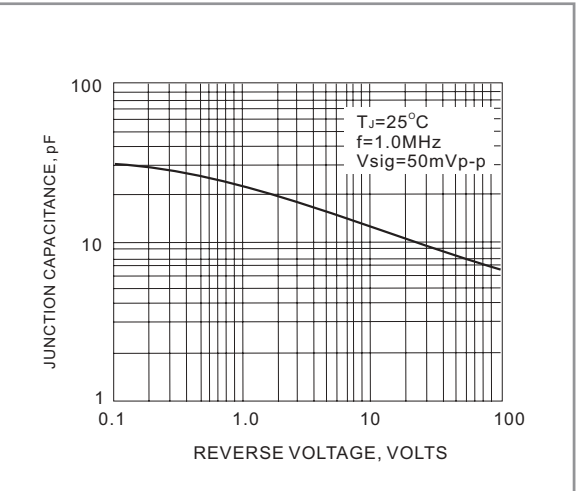


Fig.5 TYPICAL JUNCTION CAPACITANCE