

UF3A~UF3J

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 600 Volts **CURRENT** 3.0 Amperes

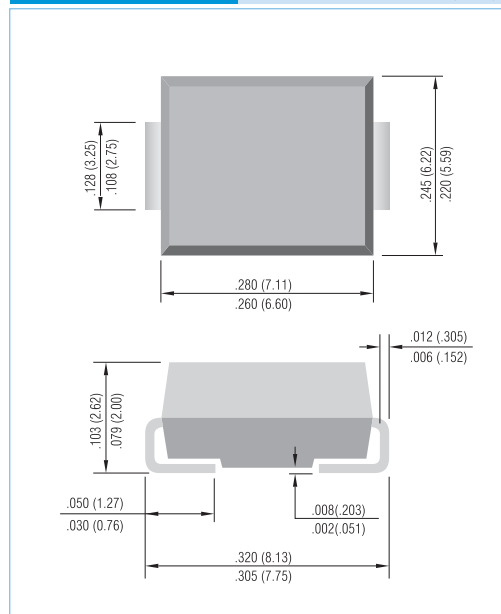
SMC / DO-214AB Unit: inch (mm)

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-O
- Glass passivated junction
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounce, 0.2325 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	UF3A	UF3B	UF3D	UF3G	UF3J	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	V
Maximum Average Forward Current at T _L =75°C	I _{F(AV)}	3.0					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	100					A
Maximum Forward Voltage at 3.0A	V _F	1.0			1.4	1.7	V
Maximum DC Reverse Current at T _J =25°C Rated DC Blocking Voltage T _J =125°C	I _R	1.0 300					μA
Typical Junction capacitance (Note 2)	C _J	75				63	pF
Typical Thermal Resistance(Note 3)	R _{θJL}	15					°C / W
Maximum Reverse Recovery Time (Note 1)	t _{rr}	50				100	ns
Operating Junction and Storage Temperature Range	T _J ,T _{STG}	-55 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.

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RATING AND CHARACTERISTIC CURVES

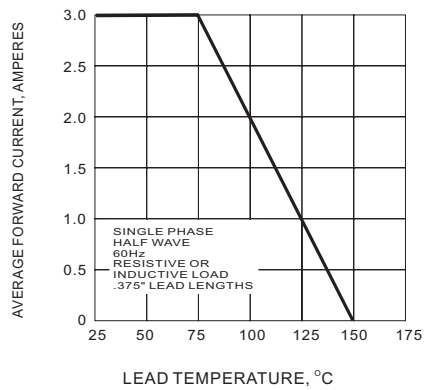


Fig.1 FORWARD CURRENT DERATING CURVE

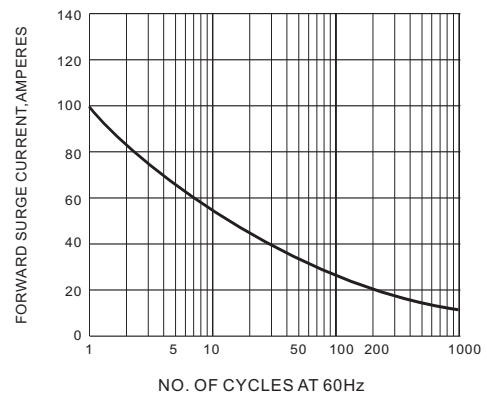


Fig.6 PEAK FORWARD SURGE CURRENT

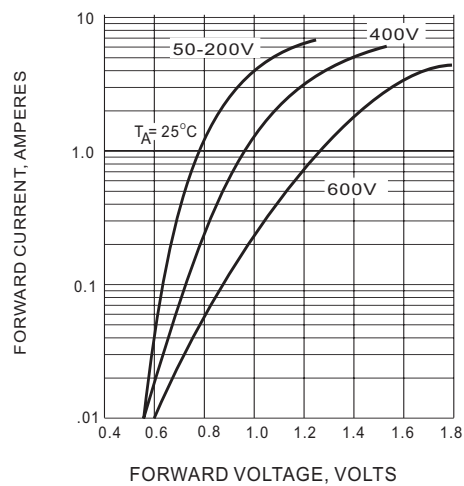


Fig.3 FORWARD CHARACTERISTICS

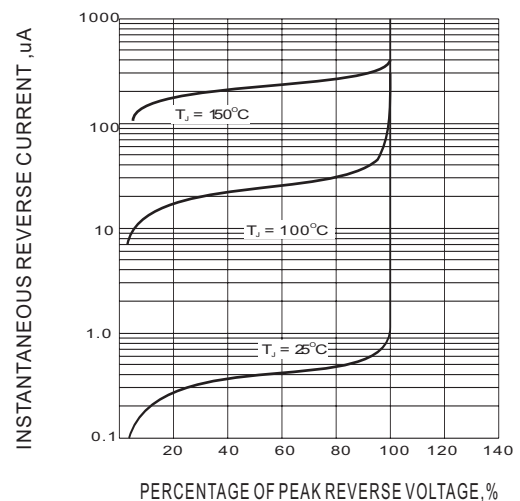


Fig.4 TYPICAL REVERSE CHARACTERISTICS

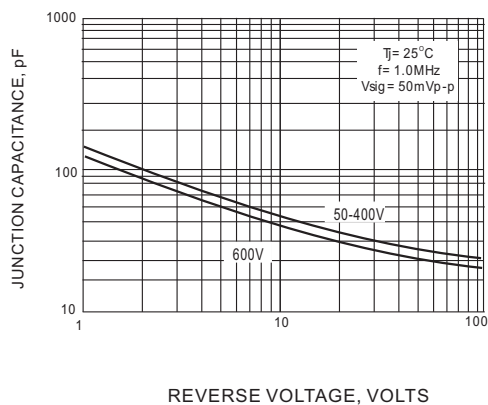
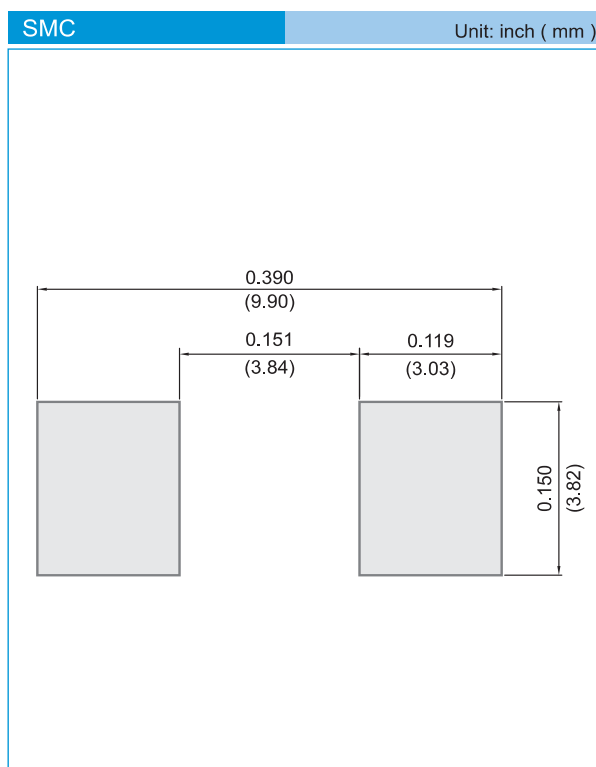


Fig.5 TYPICAL JUNCTION CAPACITANCE

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 3K per 13" plastic Reel
 - T/R - 0.5Kper 7" plastic Reel

LEGAL STATEMENT

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