

UF3A~UF3M

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 3 Ampere

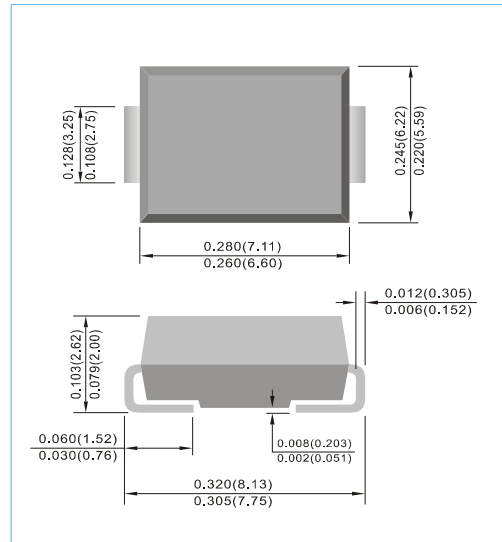
SMC / DO-214AB Unit : inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounces, 0.2325 grams



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 | UF3K | UF3M | UNITS |
|---|-----------------|-------------|------|------|------|------|------|------|-----------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 3 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 100 | | | | | | | A |
| Maximum Forward Voltage at 3A | V_F | 1 | | 1.3 | | 1.7 | | V | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$ | I_R | 1 300 | | | | | | | μA |
| Typical Junction Capacitance (Note 2) | C_J | 75 | | | | 63 | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JL}$ | 15 | | | | | | | $^{\circ}C / W$ |
| Maximum Reverse Recovery Time (Note 1) | t_{rr} | 50 | | | | 100 | | | ns |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

NOTES:1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$
2. Measured at 1 MHz and applied $V_r = 4$ volts.
3. 8 mm² (0.013mm thick) land areas.

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RATING AND CHARACTERISTIC CURVES

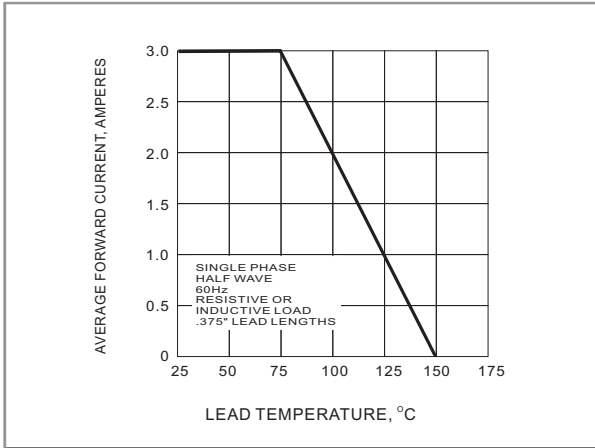


Fig.1 FORWARD CURRENT DERATING CURVE

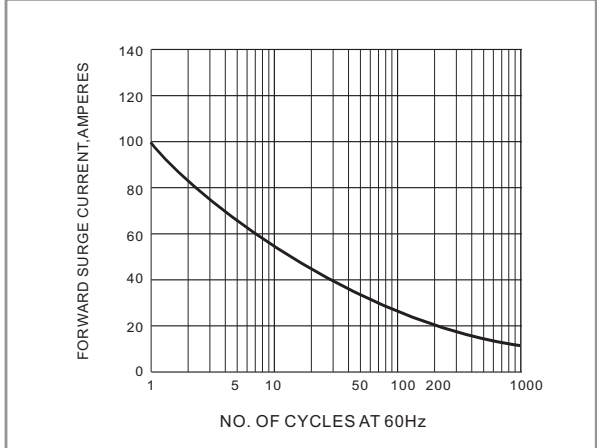


Fig.6 PEAK FORWARD SURGE CURRENT

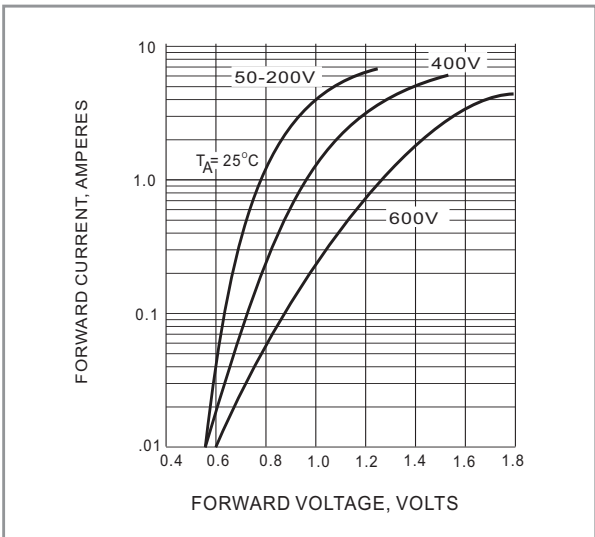


Fig.3 FORWARD CHARACTERISTICS

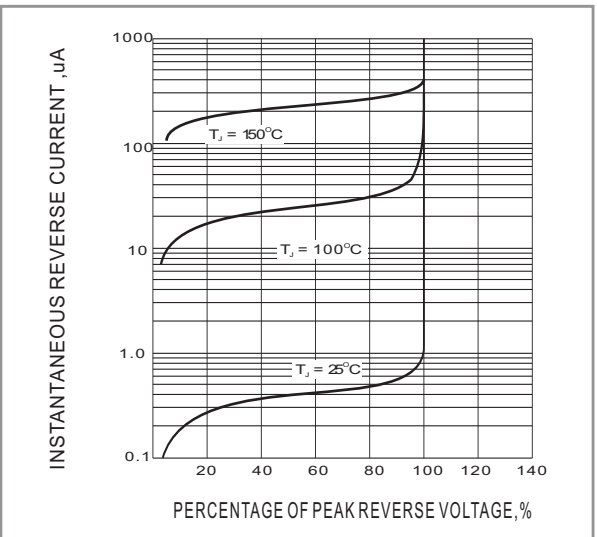


Fig.4 TYPICAL REVERSE CHARACTERISTICS

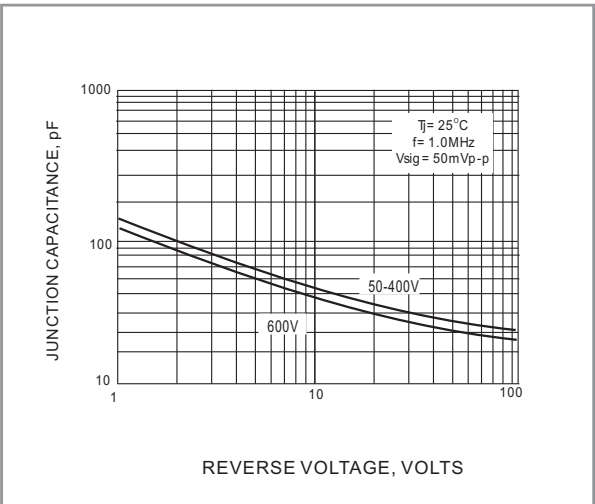


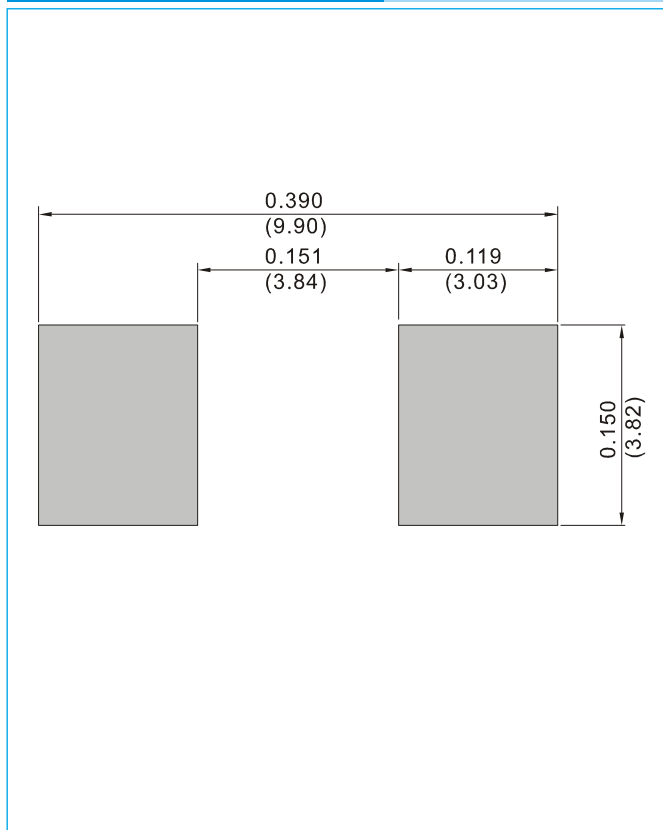
Fig.5 TYPICAL JUNCTION CAPACITANCE

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MOUNTING PAD LAYOUT

SMC / DO-214AB

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 3K per 13" plastic Reel
 - T/R - 0.8K per 7" plastic Reel

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