

1 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

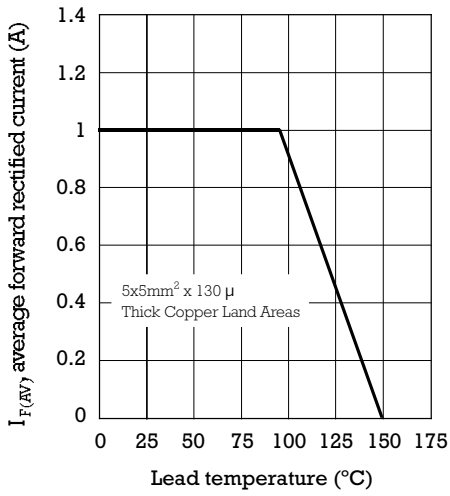
| | | |
|---|--------------------------------------|--|
| <p>Dimensions in mm.</p> | <p>CASE: SMA/DO-214AC</p> | <p>Voltage 50 to 1000 V</p> <p>Current 1.0 A</p> |
| <ul style="list-style-type: none"> • Glass passivated junction • High current capability • The plastic material carries U/L 94 V-0 • Low profile package • Easy pick and place • High temperature soldering 260 °C 10 sec | | |
| <p>MECHANICAL DATA</p> <p>Terminals: Solder plated, solderable per IEC 68-2-20. Standard Packaging: 4 mm. tape (EIA-RS-481). Weight: 0.064 g.</p> | | |

Maximum Ratings and Electrical Characteristics at 25 °C

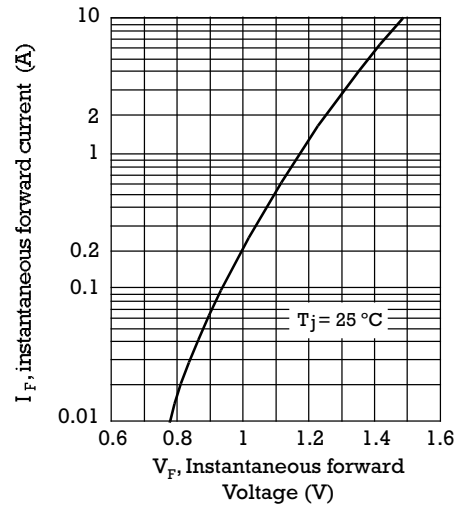
| | | FRS1A | FRS1B | FRS1D | FRS1G | FRS1J | FRS1K | FRS1M |
|--------------------------------|---|-------------------------|-------|-------|-------|--------|--------|-------|
| Marking Code | | F1 | F2 | F3 | F4 | F5 | F6 | F7 |
| V_{RRM} | Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| V_{RMS} | Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| V_{DC} | Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| $I_{F(AV)}$ | Forward current at $T_L = 95\text{ °C}$ | 1.0 A | | | | | | |
| I_{FSM} | 8.3 ms. peak forward surge current (Jedec Method) | 30 A | | | | | | |
| V_F | Maximum Instantaneous Forward Voltage at 1.0A | 1.3 V | | | | | | |
| I_R | Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$ | 5 μ A 50 μ A | | | | | | |
| t_{rr} | Maximum Reverse Recovery Time (0.5/1/0.25A) | 150 ns | | | | 250 ns | 500 ns | |
| C_j | Typical Junction Capacitance (1MHz; -4V) | 8 pF | | | | | | |
| $R_{th(j-l)}$ $R_{th(j-a)}$ | Typical Thermal Resistance (5x5 mm ² x 130 μ Copper Area) | 27 °C/W 75 °C/W | | | | | | |
| $T_j - T_{stg}$ | Operating Junction and Storage Temperature Range | -55 to + 150 °C | | | | | | |

Rating And Characteristic Curves

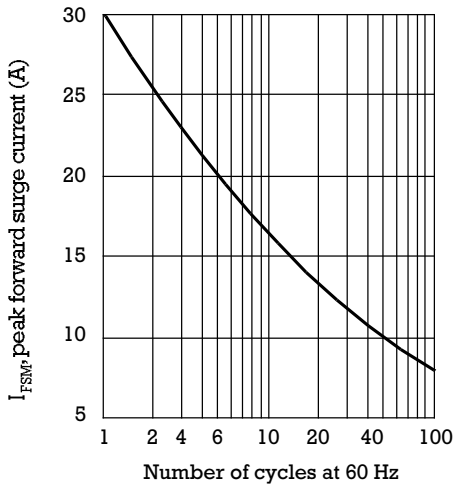
FORWARD CURRENT DERATING CURVE



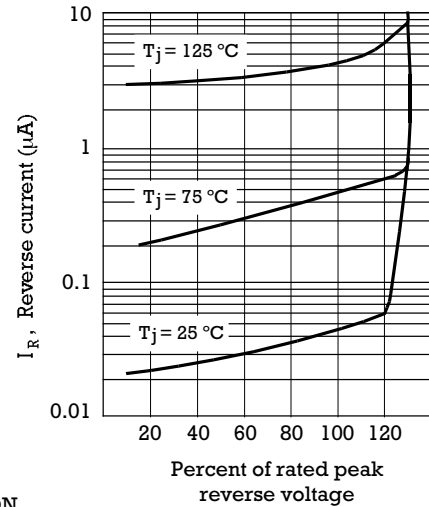
TYPICAL FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE

