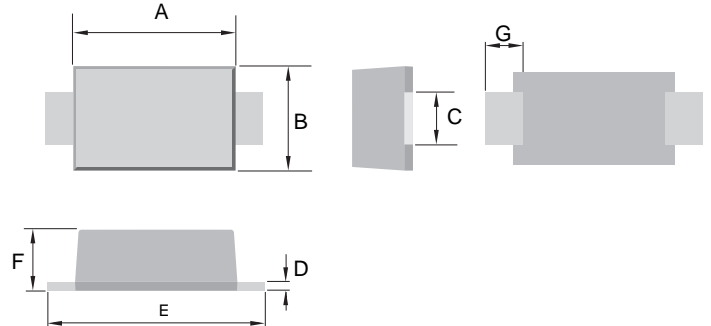


## 1.0A SURFACE MOUNT GLASS PASSIVATED FAST RECOVERY DIODE

### Features

- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



### Mechanical Data

- Case: SMAF, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.037 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

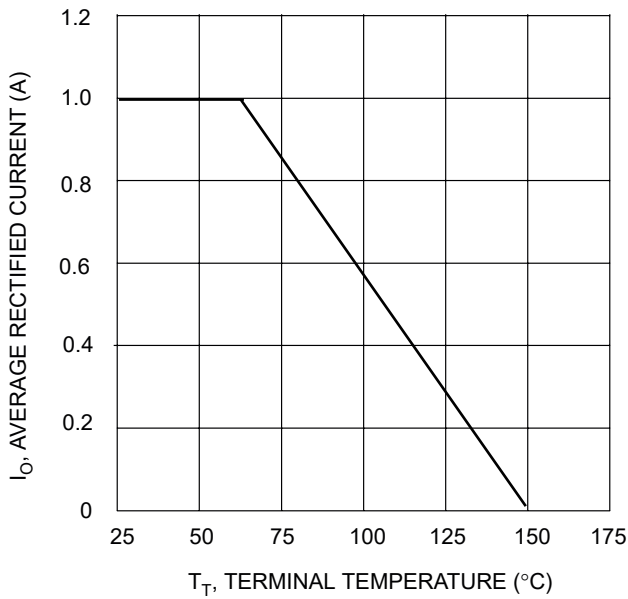
| SMAF                 |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 3.20 | 3.60 |
| B                    | 2.40 | 2.80 |
| C                    | 1.38 | 1.43 |
| D                    | 0.10 | 0.20 |
| E                    | 4.40 | 4.80 |
| F                    | 0.90 | 1.10 |
| G                    | 0.90 | -    |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

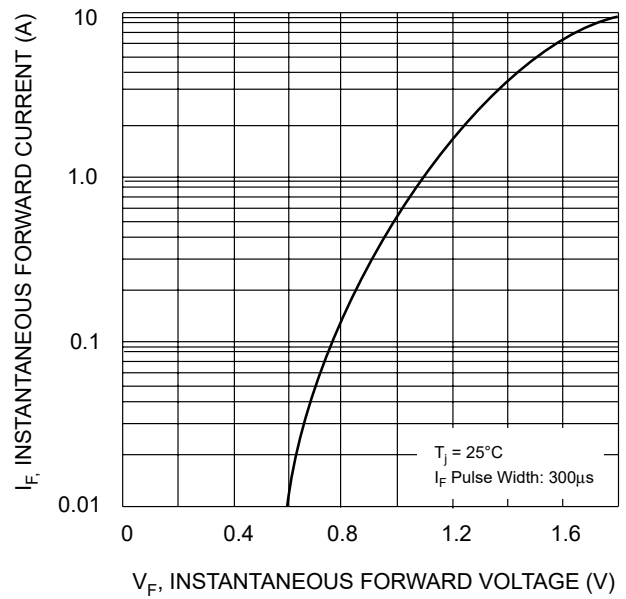
| Characteristic   | Symbol          | RS1AF       | RS1BF | RS1DF | RS1GF | RS1JF | RS1KF | RS1MF | Unit               |
|--|-----------------|-------------|-------|-------|-------|-------|-------|-------|--------------------|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                  |
| Working Peak Reverse Voltage   | $V_{RWM}$       |             |       |       |       |       |       |       |                    |
| DC Blocking Voltage  | $V_R$           |             |       |       |       |       |       |       |                    |
| RMS Reverse Voltage  | $V_{R(RMS)}$    | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                  |
| Average Rectified Output Current @ $T_L = 100^\circ\text{C}$   | $I_O$           | 1.0         |       |       |       |       |       |       | A                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 30          |       |       |       |       |       |       | A                  |
| Forward Voltage @ $I_F = 1.0\text{A}$  | $V_{FM}$        | 1.3         |       |       |       |       |       |       | V                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$        | $I_{RM}$        | 10<br>500   |       |       |       |       |       |       | $\mu\text{A}$      |
| Reverse Recovery Time (Note 1)   | $t_{rr}$        | 150         |       |       |       | 250   | 500   |       | nS                 |
| Typical Junction Capacitance (Note 2)  | $C_j$           | 15          |       |       |       |       |       |       | pF                 |
| Typical Thermal Resistance (Note 3)  | $R_{\theta JL}$ | 30          |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range  | $T_j, T_{STG}$  | -65 to +150 |       |       |       |       |       |       | $^\circ\text{C}$   |

- Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$ . See figure 5.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.

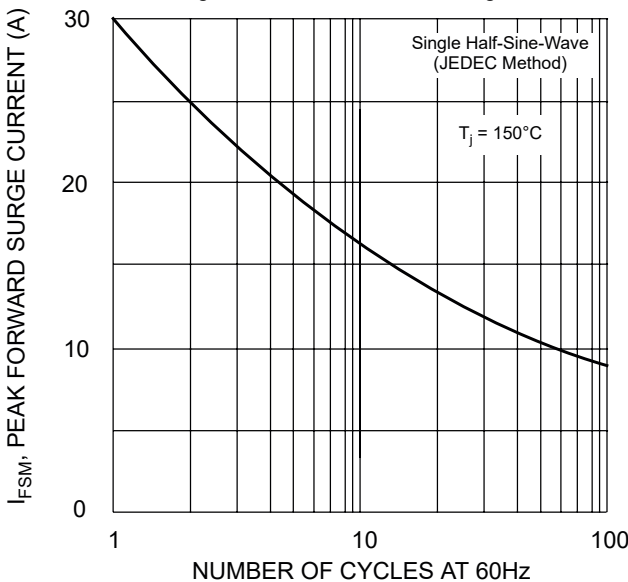
# RS1AF-RS1MF



$T_T$ , TERMINAL TEMPERATURE (°C)  
 Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
 Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60Hz  
 Fig. 3 Forward Surge Current Derating Curve

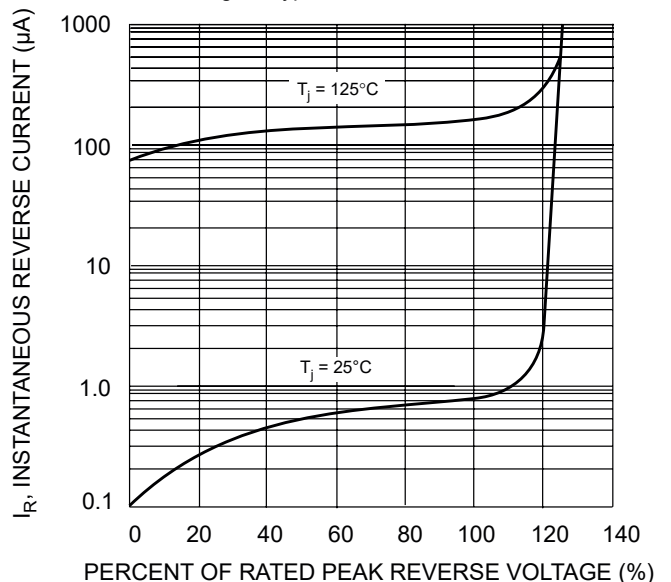
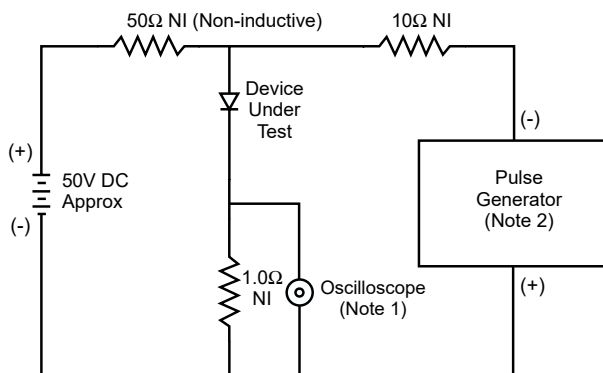
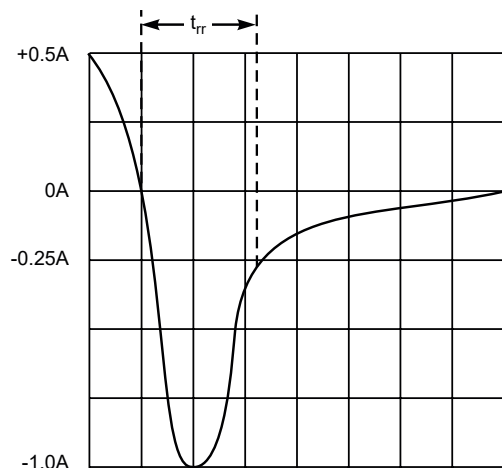


Fig. 4 Typical Reverse Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Rectifiers](#) category:*

*Click to view products by [YFSEMI](#) manufacturer:*

Other Similar products are found below :

[70HFR40](#) [FR105 R0](#) [RL252-TP](#) [150KR30A](#) [1N5397](#) [1N4002G](#) [1N4005-TR](#) [UFS120Je3/TR13](#) [JANS1N6640US](#) [481235F](#)  
[RRE02VS6SGTR](#) [067907F](#) [MS306](#) [70HF40](#) [T110HF60](#) [T85HFL60S02](#) [US2JFL-TP](#) [A1N5404G-G](#) [CRS12\(T5L,TEMQ\)](#) [ACGRB207-HF](#)  
[CLH07\(TE16L,Q\)](#) [CLH03\(TE16L,Q\)](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [NTE6356](#) [NTE6359](#) [85HFR60](#) [40HFR60](#) [70HF120](#) [85HFR80](#)  
[D126A45C](#) [SCF7500](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SDHD5K](#) [ACGRA4001-HF](#) [ACURA107-HF](#) [D1821SH45T PR](#) [D1251S45T](#)  
[NTE6358](#) [NTE5850](#) [NTE5819](#) [NTE5837](#) [NTE5892](#) [NTE5900](#) [NTE5911](#) [NTE5915](#) [NTE5921](#)