

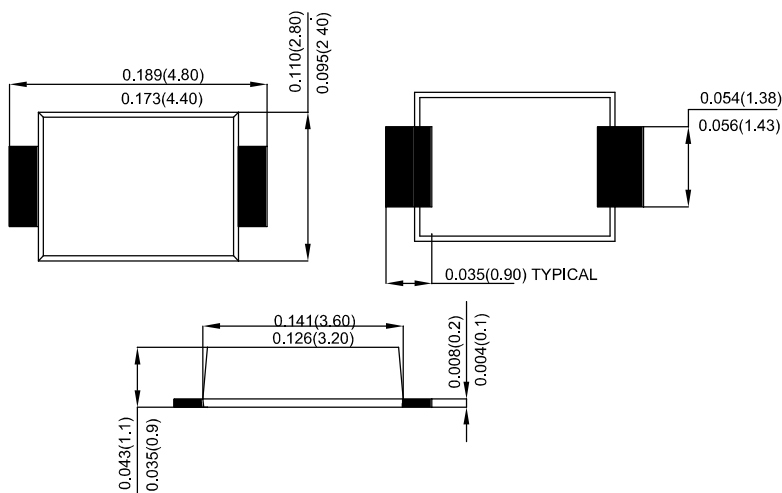
### Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V- 0

### Mechanical Data

- Case: Molded plastic SMAF
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number

### SMAF



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load

For capacitive load derate current by 20%

| Type Number                                                                                            | SYMBOL           | U1AU        | U1BU | U1DU | U1GU | U1JU | U1KU | U1MU | Unit |
|--------------------------------------------------------------------------------------------------------|------------------|-------------|------|------|------|------|------|------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | V <sub>RRM</sub> | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V    |
| Maximum RMS Voltage                                                                                    | V <sub>RMS</sub> | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V    |
| Maximum DC Blocking Voltage                                                                            | V <sub>DC</sub>  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V    |
| Average Rectified Output Current<br>@T <sub>L</sub> =75 °C                                             | I <sub>O</sub>   | 1.0         |      |      |      |      |      |      | A    |
| Peak Forward Surge Current 8.3ms Single half<br>sine-wave superimposed on rated load (JEDEC<br>Method) | I <sub>FSM</sub> | 35          |      |      |      |      |      |      | A    |
| Forward Voltage @IF=1.0A                                                                               | V <sub>FM</sub>  | 1.0         |      |      | 1.3  | 1.7  |      |      | V    |
| Peak Reverse Current @T <sub>A</sub> =25 °C                                                            | I <sub>R</sub>   | 5.0         |      |      |      |      |      |      | uA   |
| At Rated DC Blocking Voltage @T <sub>A</sub> =100 °C                                                   |                  | 100         |      |      |      |      |      |      |      |
| Maximum Reverse Recovery Time (Note 1)                                                                 | T <sub>rr</sub>  | 50          |      |      |      | 75   |      |      | ns   |
| Typical Junction Capacitance (Note 2)                                                                  | C <sub>J</sub>   | 17          |      |      |      |      |      |      | pF   |
| Typical Thermal Resistance Junction to<br>Ambient (Note 3)                                             | R <sub>θJA</sub> | 30          |      |      |      |      |      |      | °C/W |
| Operating Temperature Range                                                                            | T <sub>J</sub>   | -55 to +150 |      |      |      |      |      |      | °C   |
| Storage Temperature Range                                                                              | T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |      | °C   |

Note: 1.Reverse Recovery Test Conditions: $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$ .  
 2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C  
 3. 8.0MM<sup>2</sup> (.013mm Thick) Land Areas.

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

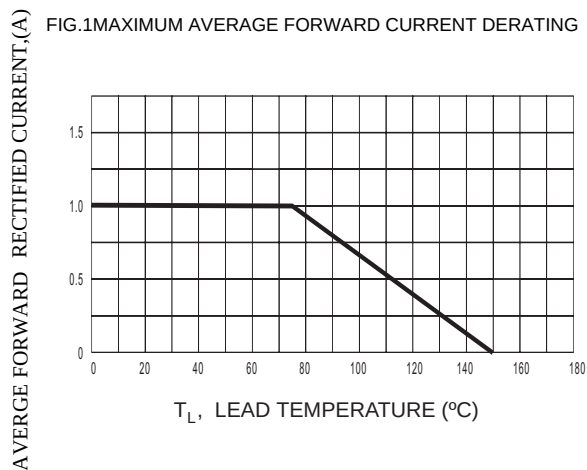


FIG.2 TYPICAL FORWARD CHARACTERISTICS

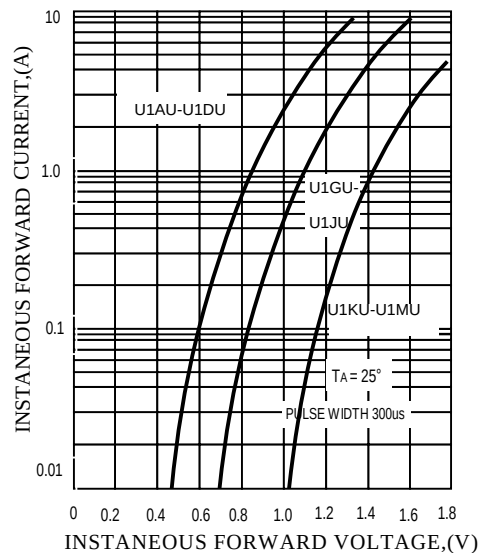


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

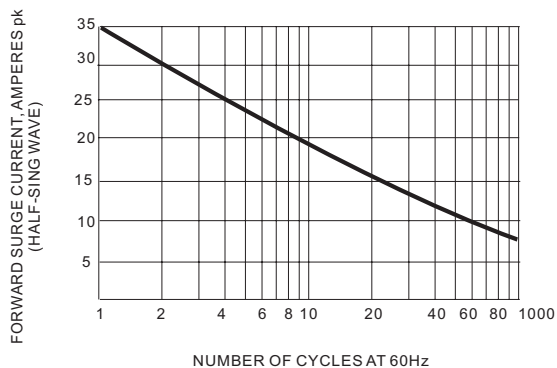


FIG.4 TYPICAL JUNCTION CAPACITANCE

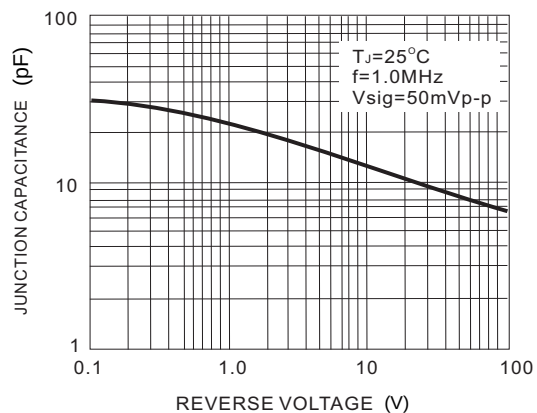


FIG.5 TYPICAL REVERSE CHARACTERISTICS

