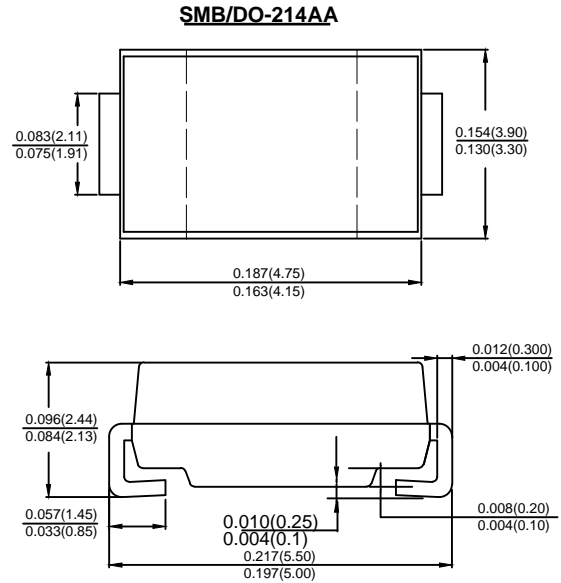


### Features

- Glass passivated junction chip
- 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 SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



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          | ER1A        | ER1B | ER1C | ER1D | ER1E | ER1G | ER1J | Unit         |
|--|-----------------|-------------|------|------|------|------|------|------|--------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 50          | 100  | 150  | 200  | 300  | 400  | 600  | V            |
| Maximum RMS Voltage  | $V_{RMS}$       | 35          | 70   | 105  | 140  | 210  | 280  | 420  | V            |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 50          | 100  | 150  | 200  | 300  | 400  | 600  | V            |
| Average Rectified Output Current<br>@ $T_L = 55^\circ C$   | $I_o$           | 1.0         |      |      |      |      |      |      | A            |
| Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 35          |      |      |      |      |      |      | A            |
| Forward Voltage @ $I_F = 1.0A$   | $V_{FM}$        | 0.95        |      |      | 1.25 |      | 1.7  |      | V            |
| Peak Reverse Current @ $T_A = 25^\circ C$  | $I_R$           | 5.0         |      |      |      |      |      |      | uA           |
| At Rated DC Blocking Voltage @ $T_A = 100^\circ C$   |                 | 100         |      |      |      |      |      |      |              |
| Maximum Reverse Recovery Time (Note 1)   | $T_{rr}$        | 35          |      |      |      |      |      |      | ns           |
| Typical Junction Capacitance (Note 2)  | $C_J$           | 10          |      |      |      |      |      |      | pF           |
| Typical Thermal Resistance Junction to Ambient (Note 3)  | $R_{\theta JA}$ | 34          |      |      |      |      |      |      | $^\circ C/W$ |
| Operating Temperature Range  | $T_J$           | -55 to +150 |      |      |      |      |      |      | $^\circ C$   |
| Storage Temperature Range  | $T_{STG}$       | -55 to +150 |      |      |      |      |      |      | $^\circ C$   |

- 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. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length .

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

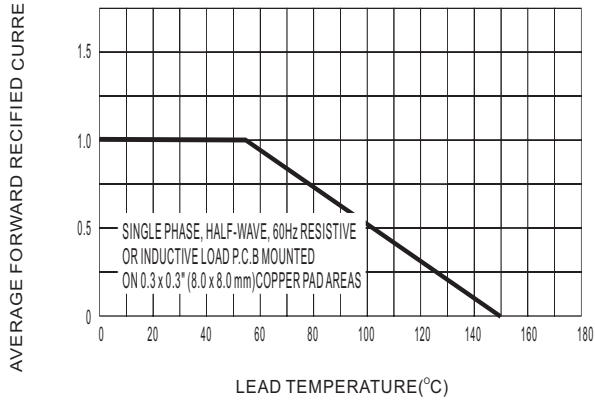


FIG.2 TYPICAL FORWARD CHARACTERISTICS

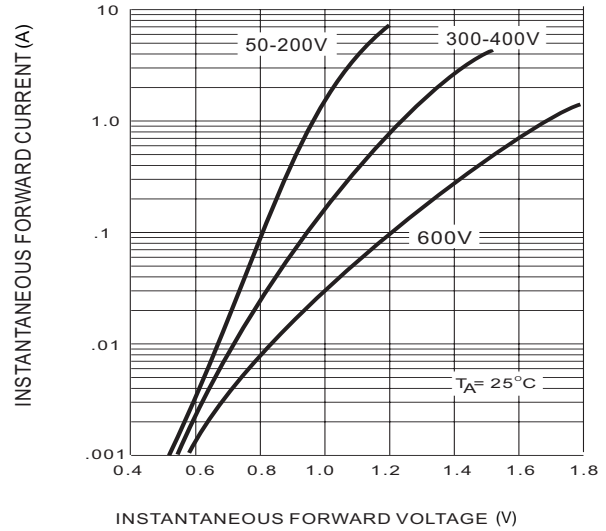


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

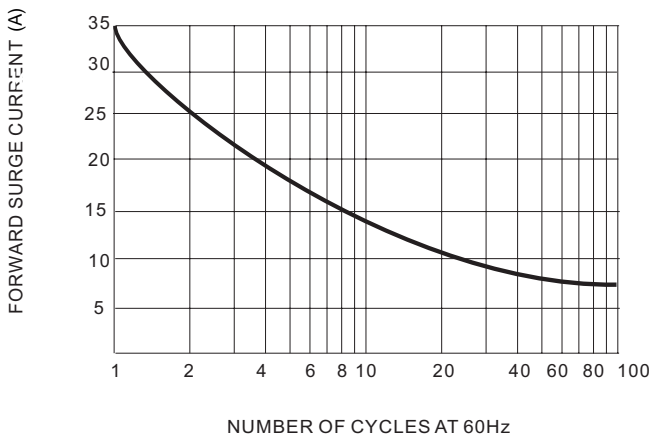


FIG.4 TYPICAL JUNCTION CAPACITANCE

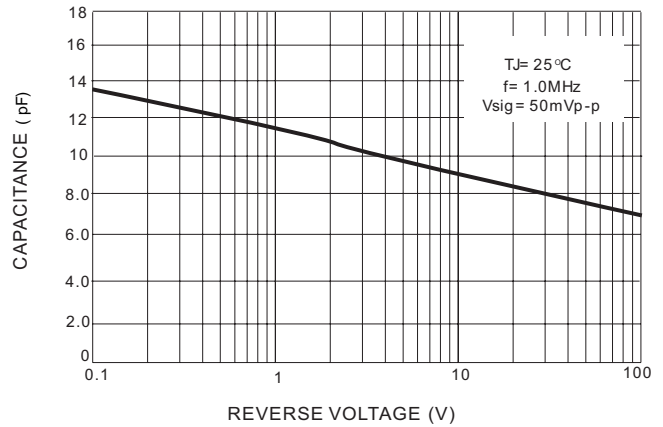


FIG.5 TYPICAL REVERSE CHARACTERISTICS

