

## S2A~S2M

### 2.0Amp Surface Mount General Purpose Rectifiers

#### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief,ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds at terminals
- ◆ Glass passivated chip junction

#### Mechanical Data

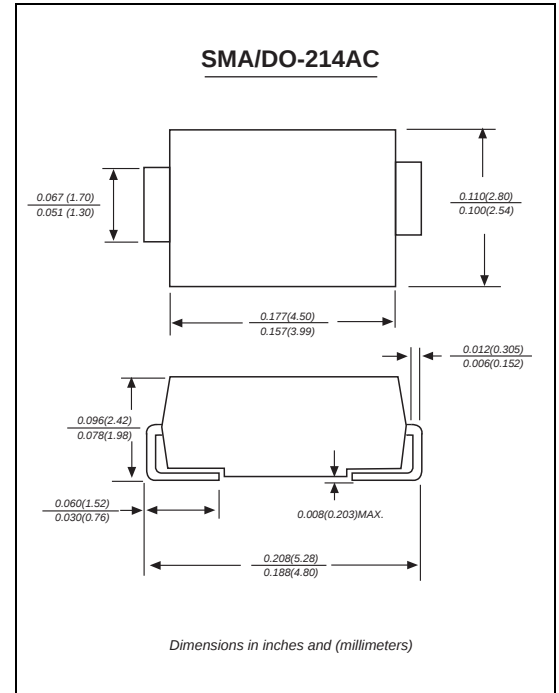
**Case:** JEDEC DO-214AC molded plastic body over passivated chip

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight :** 0.0023 ounce, 0.07 grams



### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

|                                                                                                               | SYMBOLS         | S2A         | S2B | S2D | S2G | S2J | S2K | S2M  | UNITS                |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------|-----|-----|-----|-----|-----|------|----------------------|
| Maximum repetitive peak reverse voltage                                                                       | $V_{RRM}$       | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS                |
| Maximum RMS voltage                                                                                           | $V_{RMS}$       | 35          | 70  | 140 | 280 | 420 | 560 | 700  | VOLTS                |
| Maximum DC blocking voltage                                                                                   | $V_{DC}$        | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS                |
| Maximum average forward rectified current at $T_L=75^{\circ}\text{C}$                                         | $I_{(AV)}$      | 2.0         |     |     |     |     |     |      | Amps                 |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)        | $I_{FSM}$       | 50.0        |     |     |     |     |     |      | Amps                 |
| Maximum instantaneous forward voltage at 2.0A                                                                 | $V_F$           | 1.1         |     |     |     |     |     |      | Volts                |
| Maximum DC reverse current $T_A=25^{\circ}\text{C}$<br>at rated DC blocking voltage $T_A=100^{\circ}\text{C}$ | $I_R$           | 5.0<br>50.0 |     |     |     |     |     |      | $\mu\text{A}$        |
| Typical junction capacitance (NOTE 1)                                                                         | $C_J$           | 15.0        |     |     |     |     |     |      | pF                   |
| Typical thermal resistance (NOTE 2)                                                                           | $R_{\theta JA}$ | 75.0        |     |     |     |     |     |      | $^{\circ}\text{C/W}$ |
| Operating junction and storage temperature range                                                              | $T_J, T_{STG}$  | -65 to +150 |     |     |     |     |     |      | $^{\circ}\text{C}$   |

**Note:**1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

## Ratings And Characteristic Curves GS2A THRU GS2M

FIG. 1- FORWARD CURRENT DERATING CURVE

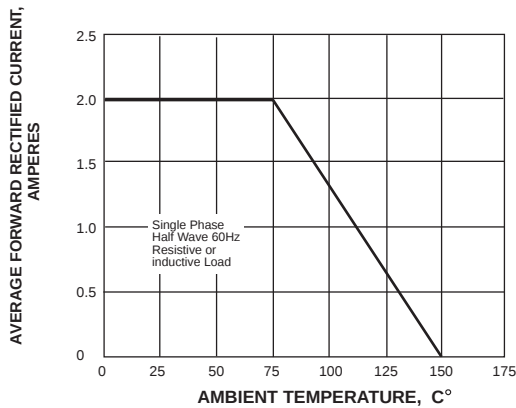


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

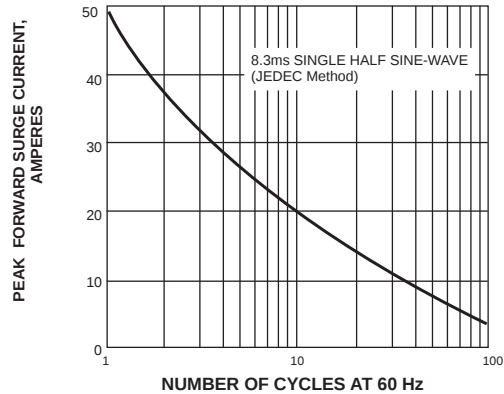


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

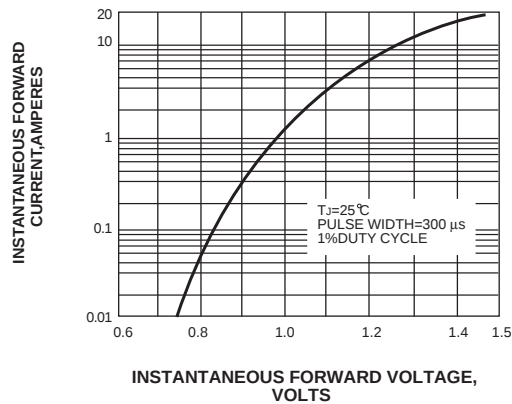


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

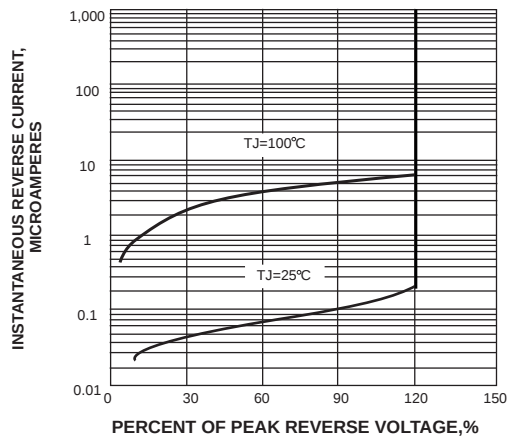


FIG. 5-TYPICAL JUNCTION CAPACITANCE

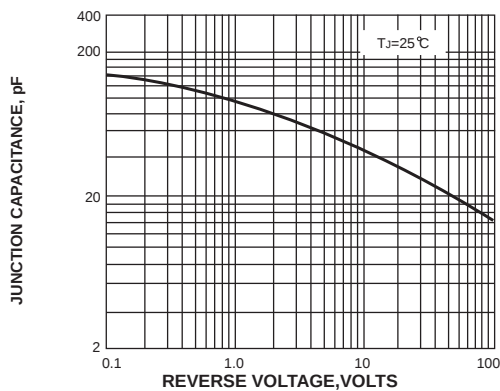


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

