



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT GLASS PASSIVATED RECTIFIER

S2A THRU S2M

VOLTAGE RANGE 50 to 1000 Volts

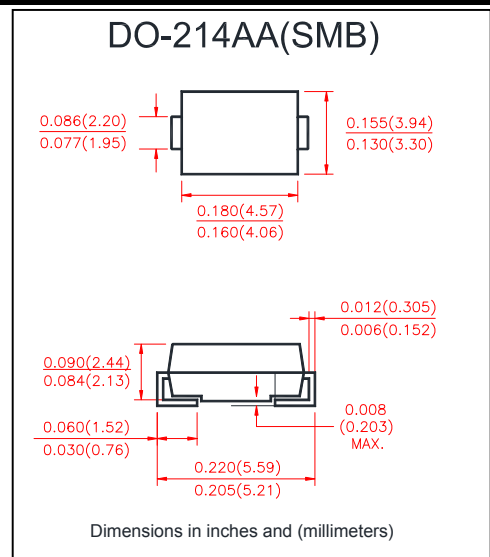
CURRENT 2.0 Ampere

### FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass Passivated chip junction
- High temperature soldering guaranteed  
250°C/10 second at terminals

### MECHANICAL DATA

- Case: JEDED DO-214AA molded plastic over glass passivated chip
- Terminals: Solder plated, Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

### MAXIMUM RATINGS & THERMAL CHARACTERISTICS

|   | SYMBOLS         | S2A         | S2B | S2D | S2G | S2J | S2K | S2M  | UNIT  |
|---|-----------------|-------------|-----|-----|-----|-----|-----|------|-------|
| 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 $T_L=100^\circ\text{C}$  | $I_{F(AV)}$     | 2.0         |     |     |     |     |     |      | Amps  |
| Peak Forward Surge Current<br>8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=100^\circ\text{C}$ | $I_{FSM}$       | 50          |     |     |     |     |     |      | Amps  |
| Typical Thermal Resistance (NOTE 1)   | $R_{\theta JA}$ | 53          |     |     |     |     |     |      | °C/W  |
|   | $R_{\theta JL}$ | 16          |     |     |     |     |     |      |       |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to +150 |     |     |     |     |     |      | °C    |

### ELECTRICAL CHARACTERISTICS

|  | SYMBOLS                   | S2A  | S2B | S2D | S2G | S2J | S2K | S2M | UNIT          |
|--|---------------------------|------|-----|-----|-----|-----|-----|-----|---------------|
| Maximum Instantaneous Forward Voltage at 1.5A  | $V_F$                     | 1.15 |     |     |     |     |     |     | Volts         |
| Maximum DC Reverse Current at rated DC Blocking Voltage                                    | $T_A = 25^\circ\text{C}$  | 5.0  |     |     |     |     |     |     | $\mu\text{A}$ |
|  | $T_A = 125^\circ\text{C}$ | 125  |     |     |     |     |     |     |               |
| Typical Reverse Recovery Time at $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$ , | $T_{rr}$                  | 2.0  |     |     |     |     |     |     | $\mu\text{s}$ |
| Typical junction capacitance at 4.0V, 1MHz   | $C_J$                     | 30   |     |     |     |     |     |     | pF            |

#### Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3×0.3" (8.0 × 8.0mm) copper pad areas.



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VOLTAGE RANGE

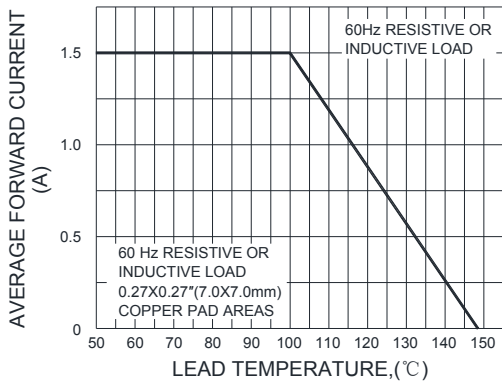
50 to 1000 Volts

CURRENT

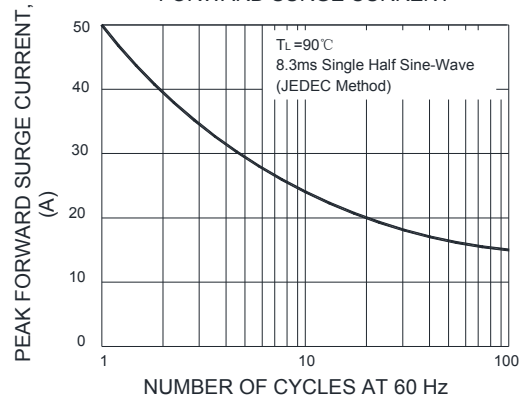
2.0 Ampere

### RATINGS AND CHARACTERISTIC CURVES

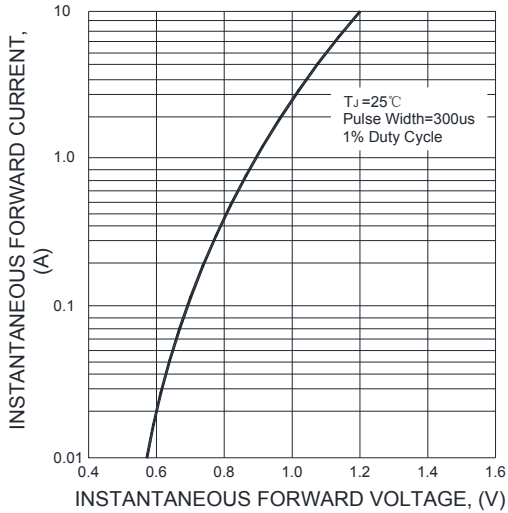
F1G.1-FORWARD CURRENT DERATING CURVE



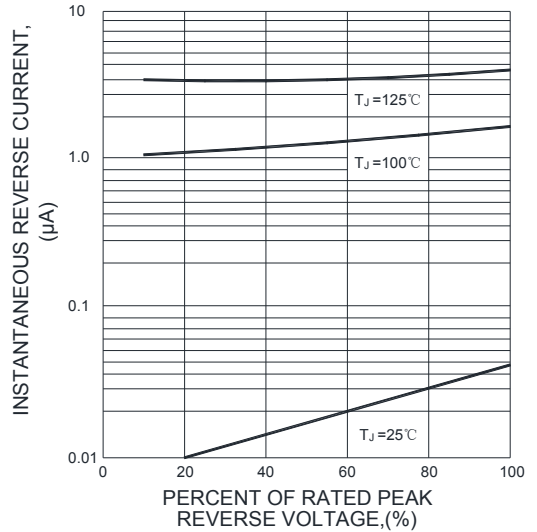
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

