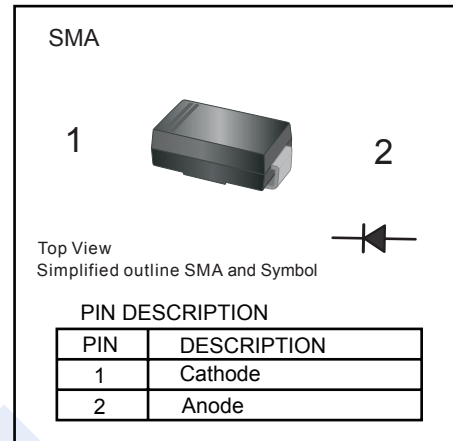


Rectifier Diodes

S1A ~ S1M

■ Features

- Reverse Voltage - 50 to 1000V
- Forward Current - 1A
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place



■ Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Parameter | Symbol | S1A | S1B | S1D | S1G | S1J | S1K | S1M | Units |
|---|-----------------|------------|-----|-----|-----|-----|-----|------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | |
| Instantaneous Forward Voltage at 1A | V_F | 1.1 | | | | | | | A |
| Averaged Forward Current $T_C=125^\circ\text{C}$ | $I_{F(AV)}$ | 1 | | | | | | | |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 30 | | | | | | | |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at rated DC blocking voltage $T_a=125^\circ\text{C}$ | I_R | 5 | | | | | | | μA |
| | | 50 | | | | | | | |
| Typical Junction Capacitance (1) | C_j | 15 | | | | | | | pF |
| Typical thermal resistance (2) | $R_{\theta JA}$ | 80 | | | | | | | |
| | $R_{\theta JC}$ | 27 | | | | | | | |
| Junction Temperature | T_j | 150 | | | | | | | °C |
| Storage Temperature | T_{stg} | -55 to 150 | | | | | | | |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B mounted with 2" × 2" (5×5 cm) copper pad areas.

■ Marking

| NO. | S1A | S1B | S1D | S1G | S1J | S1K | S1M |
|---------|-----|-----|-----|-----|-----|-----|-----|
| Marking | S1A | S1B | S1D | S1G | S1J | S1K | S1M |

Rectifier Diodes

S1A ~ S1M

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

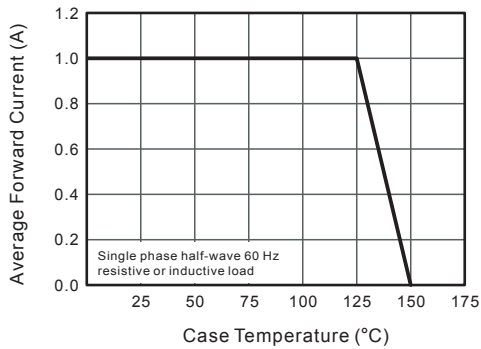


Fig.2 Typical Instantaneous Reverse Characteristics

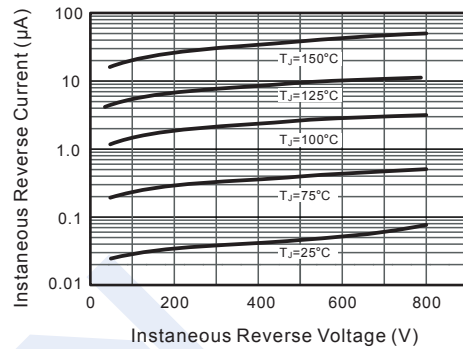


Fig.3 Typical Forward Characteristic

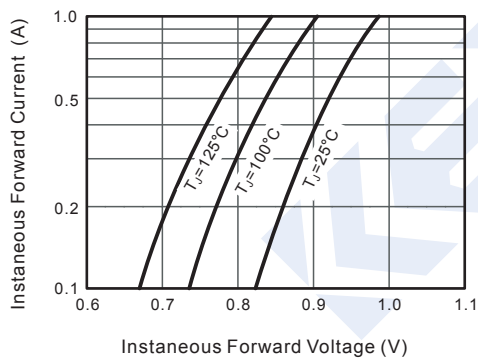


Fig.4 Typical Junction Capacitance

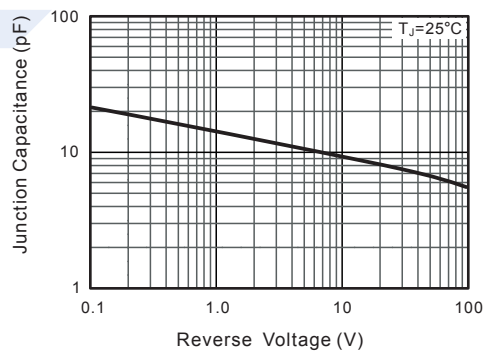
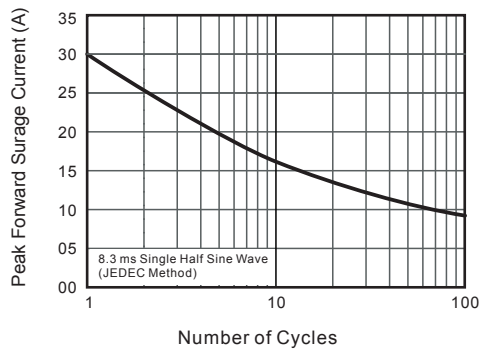


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



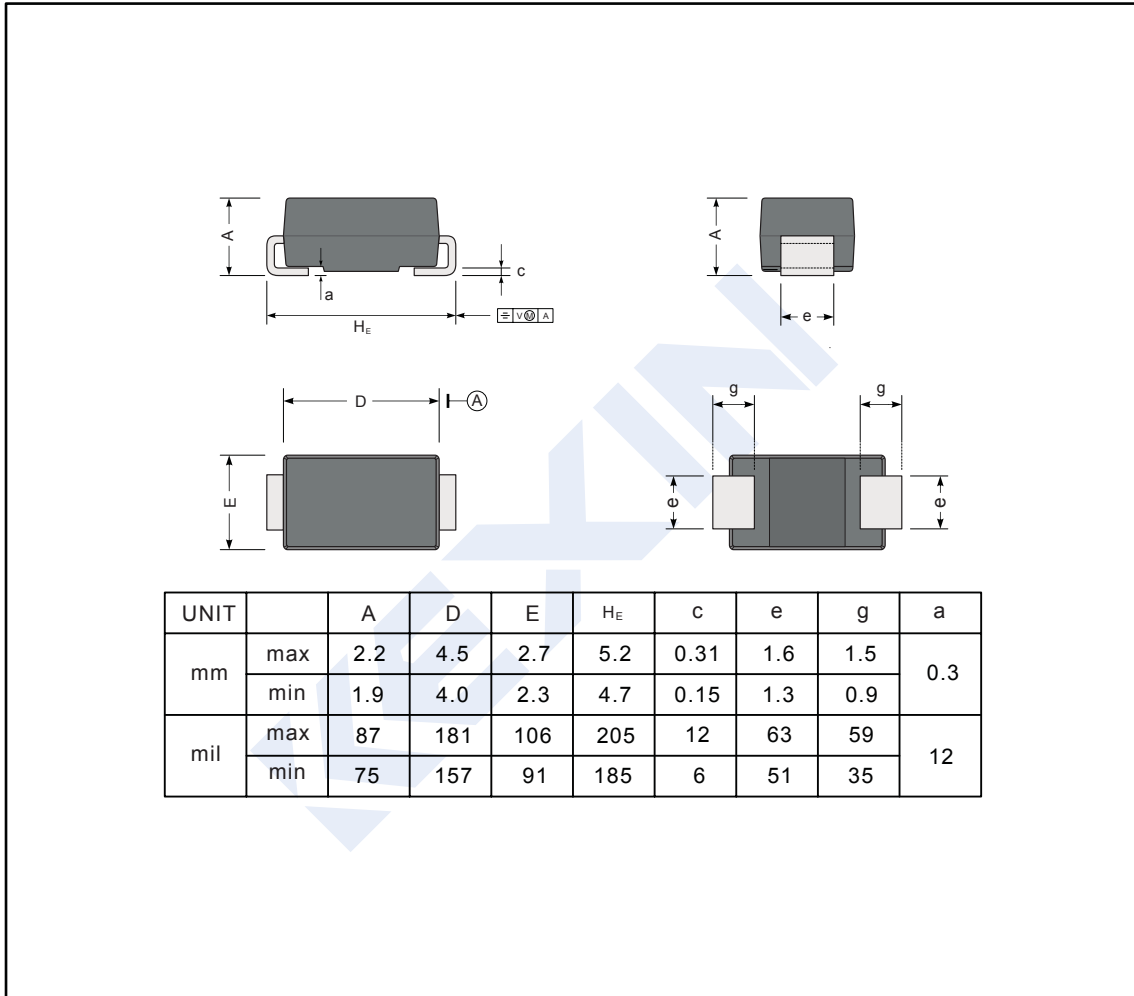
Rectifier Diodes

S1A ~ S1M

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



■ The recommended mounting pad size

