

### Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Reverse Voltage - 2000 V
- Forward Current - 1 A



### Applications

- power supply
- LED driver
- Battery protector
- adapter
- Voltage protector



### Marking:S2Y

### Absolute Maximum Ratings and Electrical characteristics

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

| Parameter                                                                          |                     | Symbols         | Value      | Units         |
|------------------------------------------------------------------------------------|---------------------|-----------------|------------|---------------|
| Maximum Repetitive Peak Reverse Voltage                                            |                     | $V_{RRM}$       | 2000       | V             |
| Maximum RMS voltage                                                                |                     | $V_{RMS}$       | 1400       | V             |
| Maximum DC Blocking Voltage                                                        |                     | $V_{DC}$        | 2000       | V             |
| Maximum Average Forward Rectified Current                                          |                     | $I_{F(AV)}$     | 1.0        | A             |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load |                     | $I_{FSM}$       | 30         | A             |
| Max Instantaneous Forward Voltage at 1 A                                           |                     | $V_F$           | 1.1        | V             |
| Maximum DC Reverse Current at Rated DC Reverse Voltage                             | $T_a = 25^{\circ}C$ | $I_R$           | 5.0        | $\mu A$       |
|                                                                                    | $T = 125^{\circ}C$  |                 | 50         |               |
| Typical Junction Capacitance (1)                                                   |                     | $C_j$           | 20         | PF            |
| Typical Thermal Resistance (2)                                                     |                     | $R_{\theta JA}$ | 85         | $^{\circ}C/W$ |
| Operating Junction Temperature Range                                               |                     | $T_j$           | -55 ~ +150 | $^{\circ}C$   |
| Storage Temperature Range                                                          |                     | $T_{stg}$       | -55 ~ +150 | $^{\circ}C$   |

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

(2). P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## Typical Electrical Characteristic Curves

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

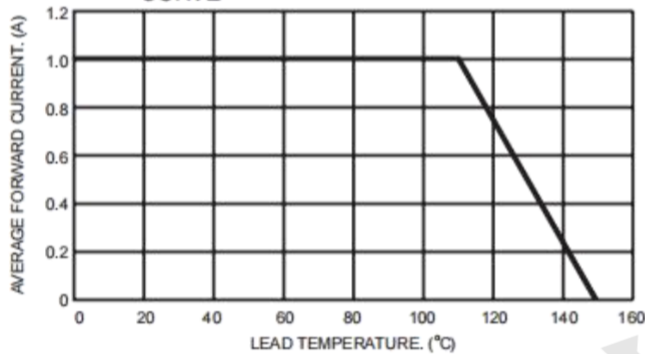


FIG.2- TYPICAL REVERSE CHARACTERISTICS

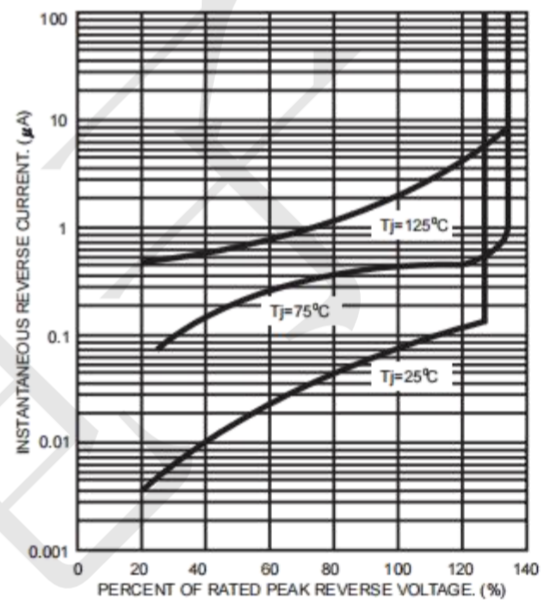


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

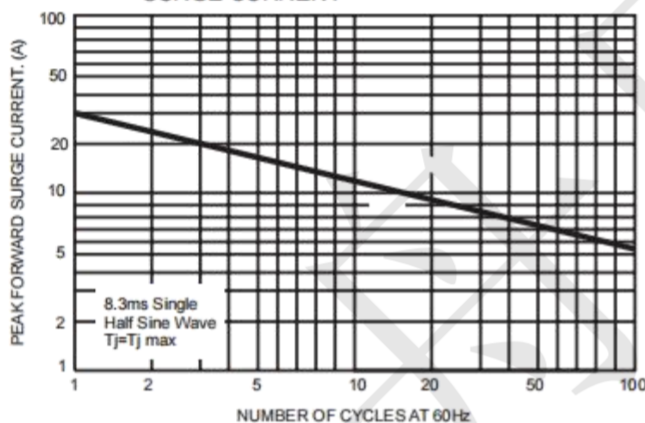


FIG.5- TYPICAL FORWARD CHARACTERISTICS

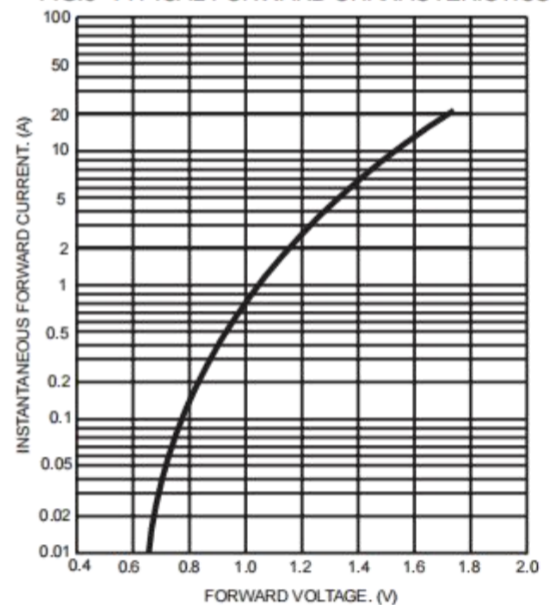


FIG.4- TYPICAL JUNCTION CAPACITANCE

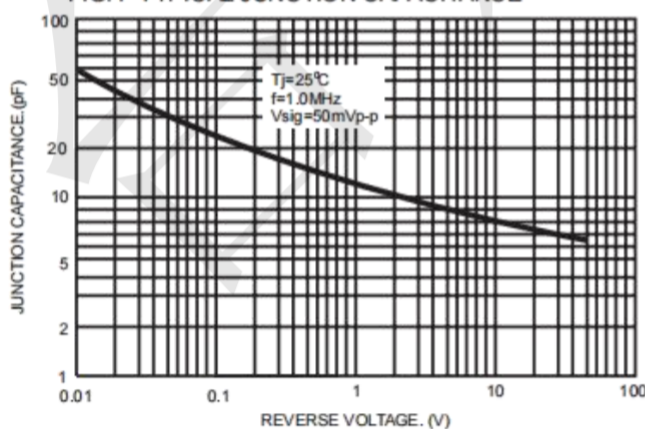
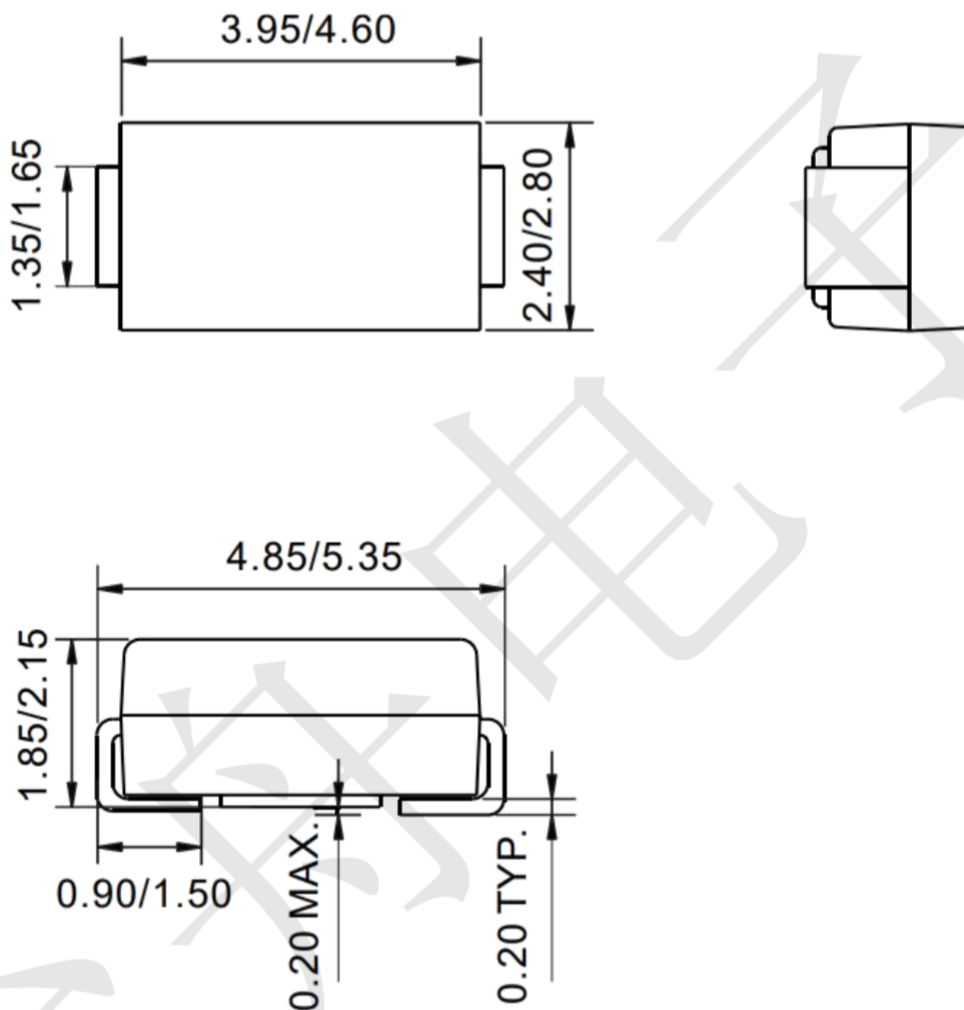


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

**Package Outline Dimensions (unit: mm)**

**SMA**



**Mounting Pad Layout (unit: mm)**

