

SURFACE MOUNT SCHOTTKY RECTIFIERS

Reverse Voltage - 30V

Forward Current - 1.0 A

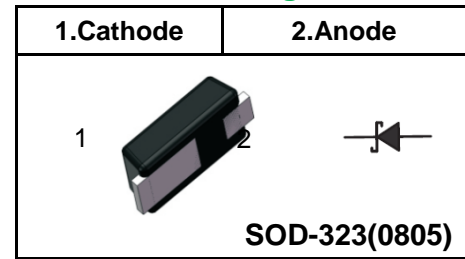
FEATURES

- ◆ High current rectifier Schottky diodes
- ◆ Low voltage, low inductance
- ◆ For detection and step-up-conversion
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-323(0805)
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 5.4mg /0.00019oz

Pinning



Marking Code

| | |
|---------------|------------|
| SSU13S | SU3 |
|---------------|------------|

Maximum Ratings (TA = 25 °C unless otherwise noted)

| Parameter | Symbols | SSU13S | Units |
|--|-------------|--------------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 30 | V |
| Forward Current | $I_{F(AV)}$ | 1.0 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load | I_{FSM} | 20 | A |
| Operating junction temperature range | T_j | 150 | °C |
| Storage temperature range | T_{stg} | - 55 to +150 | °C |

Electrical Characteristics (TA = 25 °C unless otherwise noted)

| Parameter | Test Conditions | Symbols | SSU13S | Units |
|--|---|----------|-------------------------------------|-------|
| Minimum Breakdown voltage | $T_a = 25^{\circ}C, I_R = 10\mu A$ | V_{BR} | 30 | V |
| Maximum forward voltage | $I_F = 0.1A, T_a = 25^{\circ}C$ $I_F = 0.7A, T_a = 25^{\circ}C$ $I_F = 1A, T_a = 25^{\circ}C$ | V_F | 0.25(typ) 0.36(typ) 0.38(typ) | V |
| Peak Reverse Current $V_R = 5.0V$ $V_R = 30V$ | $T_a = 25^{\circ}C$ | I_R | 10(typ) 60(max) | uA |
| Typical junction capacitance | $V_R = 10V, 1MHz$ | C_t | 200 | pF |

Fig.1 Forward Current Derating Curve

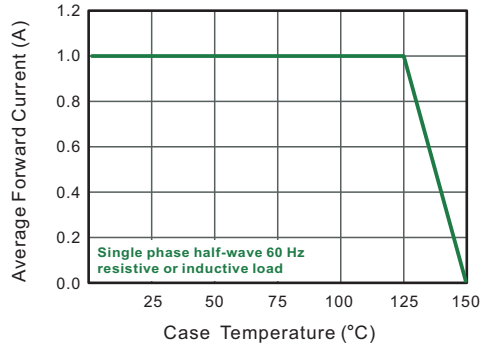


Fig.2 Typical Reverse Characteristics

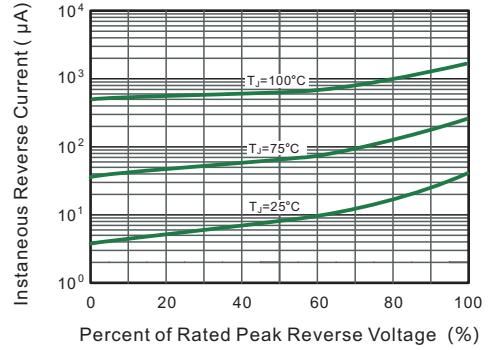


Fig.3 Typical Junction Capacitance

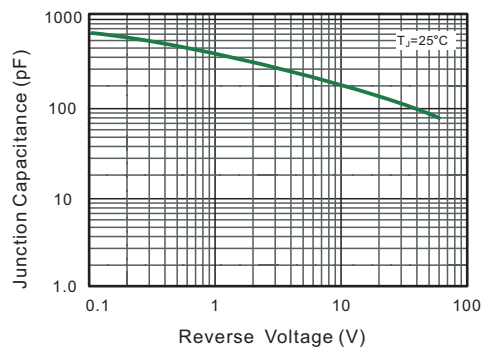


Fig.4 Typical Forward Characteristic

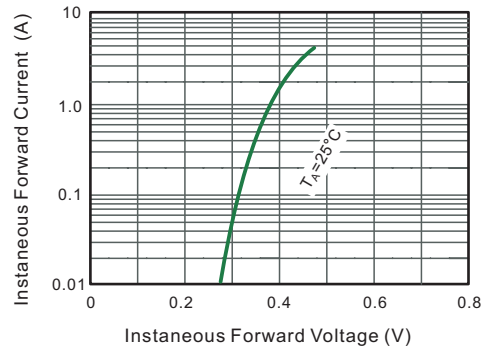
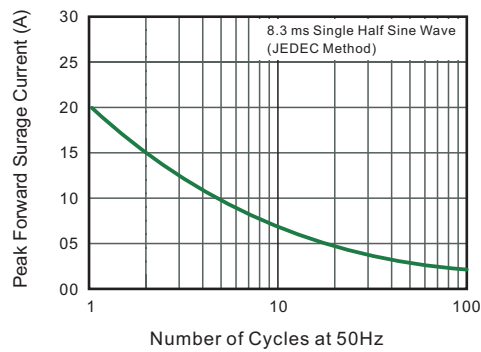
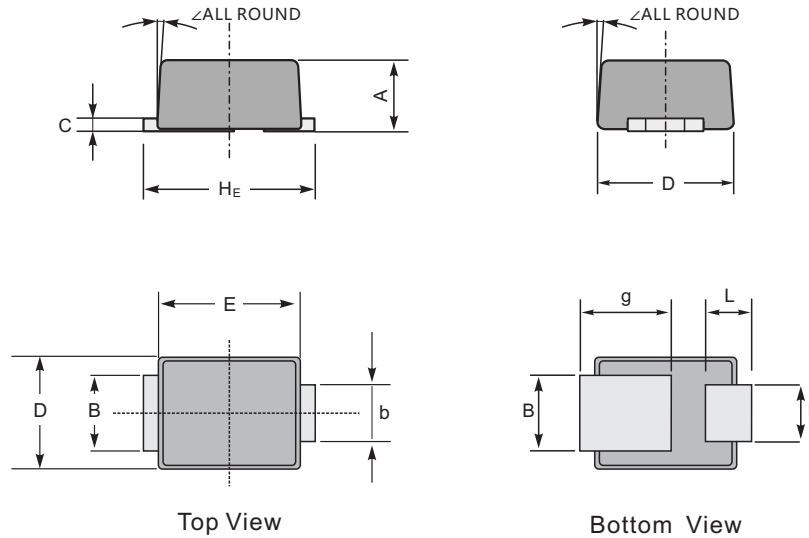


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



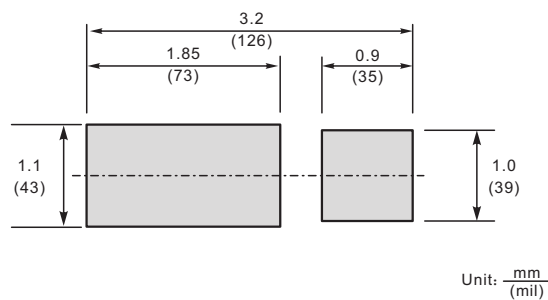
Package Outline SOD-323(0805)

Plastic surface mounted package; 2 leads



| UNIT | | A | b | B | C | D | E | H _E | g | L | \angle |
|------|-----|------|------|------|------|------|-----|----------------|------|-----|----------|
| mm | max | 0.77 | 0.75 | 0.95 | 0.20 | 1.45 | 2.3 | 2.7 | 1.55 | 0.8 | 12° |
| | min | 0.57 | 0.45 | 0.65 | 0.10 | 1.25 | 2.1 | 2.3 | 1.1 | 0.4 | |
| mil | max | 30 | 30 | 37 | 8 | 57 | 91 | 106 | 61 | 31 | |
| | min | 22 | 18 | 26 | 4 | 49 | 83 | 91 | 43 | 16 | |

The recommended mounting pad size



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------------|---------------------|------------------|-------------------|
| SOD-323(0805) | Tape/Reel, 7" reel | 3000 | EIA-481-1 |