

Surface Mount Schottky Barrier Diode

(Pb) Lead(Pb)-Free

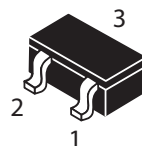
Features:

- *Low Turn-on Voltage
- *Fast Switching
- *PN Junction Guard Ring for Transient and ESD Protection

Mechanical Data:

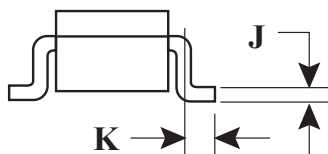
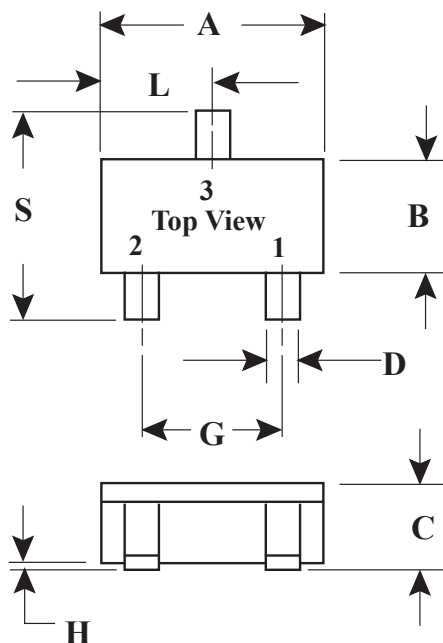
- *Case : SOT-346, Molded Plastic
- *Terminals : Solderable per MIL-STD-202, Method 208
- *Polarity : See Diagrams Below
- *Weight : 0.008 grams (approx.)
- *Mounting Position : Any

**SCHOTTKY BARRIER
RECTIFIERS
1.0AMPERES
20-40VOLTS**



SC-59

SC-59 Outline Dimension



| SC-59 | | |
|---------------------|------|------|
| Dim | Min | Max |
| A | 2.70 | 3.10 |
| B | 1.30 | 1.70 |
| C | 1.00 | 1.30 |
| D | 0.35 | 0.50 |
| G | 1.70 | 2.30 |
| H | 0.00 | 0.10 |
| J | 0.10 | 0.26 |
| K | 0.20 | 0.60 |
| L | 1.25 | 1.65 |
| S | 2.25 | 3.00 |
| All Dimension in mm | | |

Maximum Ratings and Electrical Characteristics



Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

| Type Number | WSD491 | WSD490 | Unit |
|--|--------------|--------|------|
| Maximum Recurrent Peak Reverse Voltage | 25 | 40 | V |
| Maximum RMS Voltage | 14 | 28 | V |
| Maximum DC Blocking Voltage | 20 | 40 | V |
| Maximum Average Forward Rectified Current | 1.0 | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | 3.0 | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 0.45 | 0.53 | V |
| Maximum DC Reverse Current Ta=25°C | 0.2 | | mA |
| At Rated DC Blocking Voltage Ta=100°C | 4.0 | | mA |
| Operating Temperature Range Tj | -25....+ 125 | | °C |
| Storage Temperature Range T _{STG} | -50....+ 125 | | °C |

Device Marking

| Item | Marking | Equivalent Circuit diagram |
|--------|---------|--|
| WSD491 | 10T |  |
| WSD490 | 10F |  |

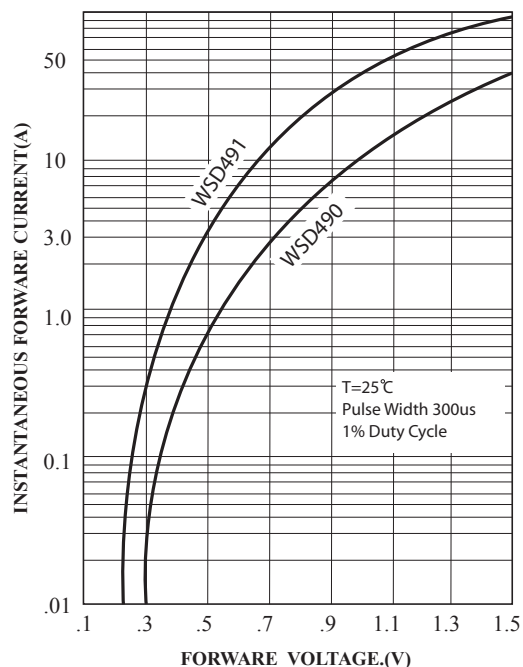


FIG.1 Typical Forward Characteristics

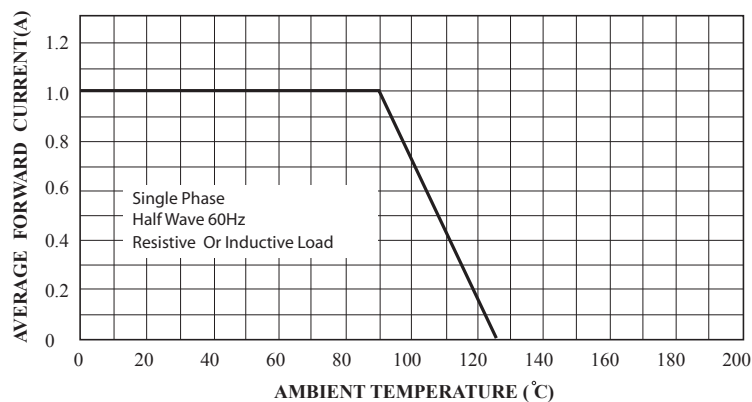


FIG.2 Typical Forward Current Derating Curve

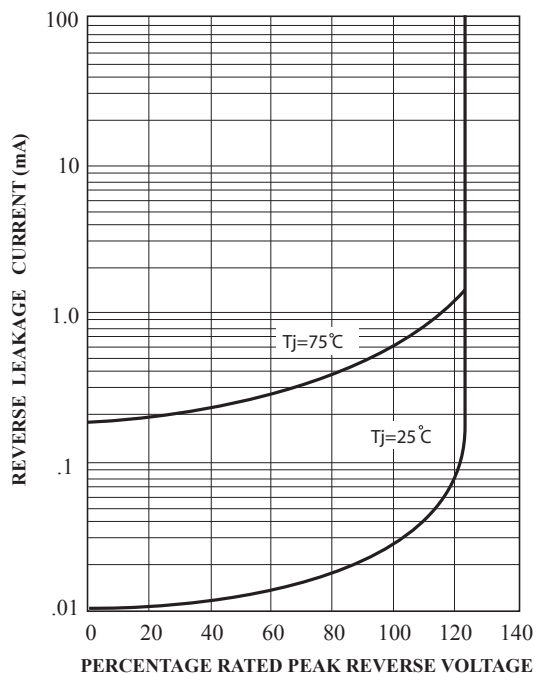


FIG.3 Typical Reverse Characteristics

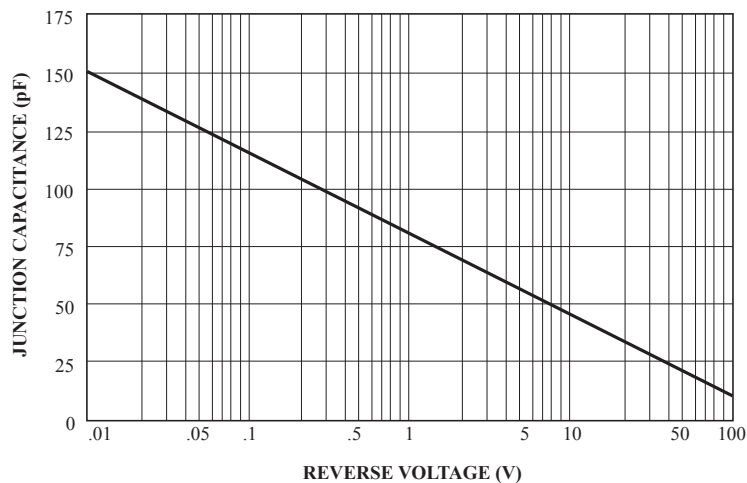


FIG.4 Typical Junction Capacitance