

### Surface Mount Schottky Barrier Diode

**(Pb)** Lead(Pb)-Free

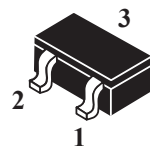
#### Features:

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

#### MECHANICAL DATA

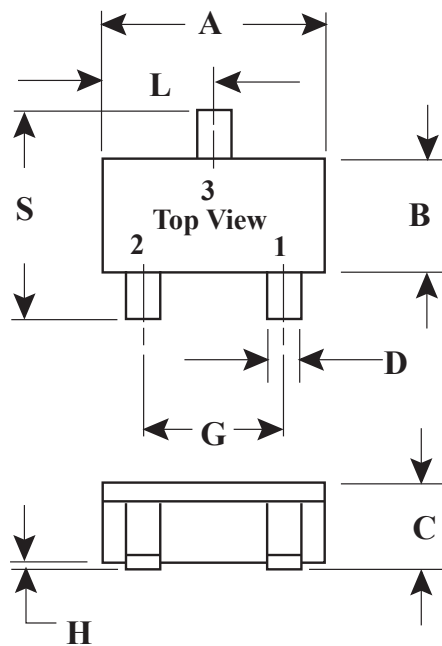
- \*Case : SOT-346, Molded Plastic
- \*Terminals : Solderable per MIL-STD-202, Method 208
- \*Polarity : See Diagrams Below
- \*Weight : 0.008 grams (approx.)
- \*Mounting Position : Any

**SCHOTTKY BARRIER  
RECTIFIERS  
0.5AMPERES  
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.

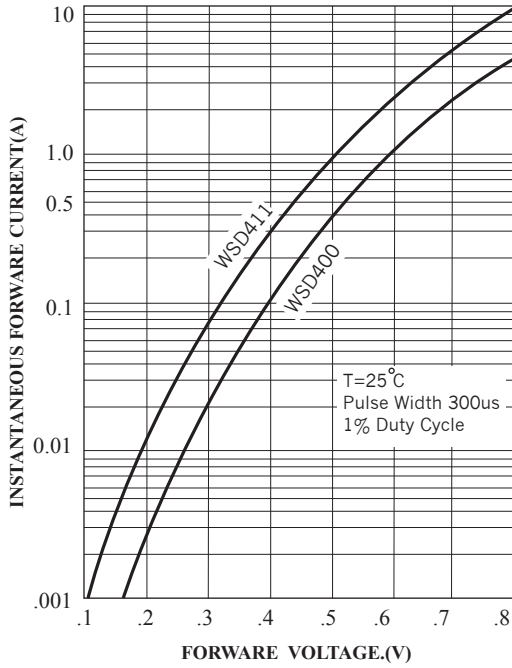
For Capacitive Load, Derate Current by 20%.

| Type Number  | WSD411        | WSD400 | Unit |
|--|---------------|--------|------|
| Maximum Recurrent Peak Reverse Voltage   | 20            | 40     | V    |
| Maximum RMS Voltage  | 14            | 28     | V    |
| Maximum DC Blocking Voltage  | 20            | 40     | V    |
| Maximum Average Forward Rectified Current  | 0.5           |        | A    |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | 3.00          |        | A    |
| Maximum Instantaneous Forward Voltage at 0.5A  | 0.45          | 0.53   | V    |
| Maximum DC Reverse Current Ta=25°C   | 0.1           |        | mA   |
| At Rated DC Blocking Voltage Ta=100°C  | 4.0           |        | mA   |
| Operating Temperature Range Tj   | -25.....+ 125 |        | °C   |
| Storage Temperature Range TSTG   | -50.....+ 125 |        | °C   |

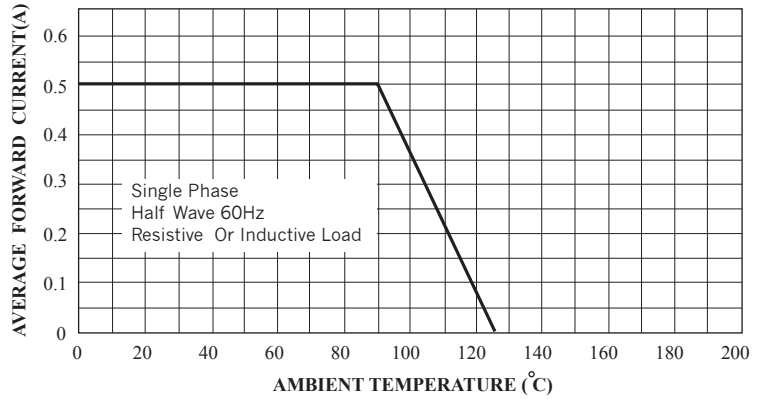
**Device Marking**

| Item   | Marking | Equivalent Circuitdiagram  |
|--------|---------|--|
| WSD411 | 05T     |  |
| WSD400 | 05F     |  |

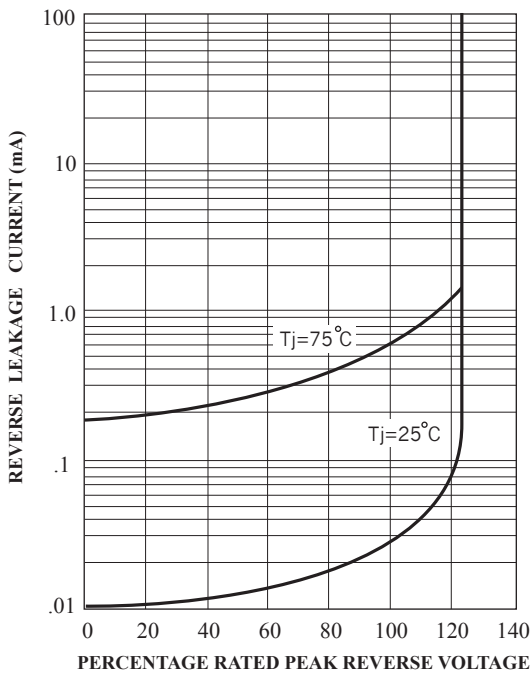
**FIG.1-TYPICAL FORWARD CHARACTERISTICS**



**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.3-TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 -TYPICAL JUNCTION CAPACITANCE**

