

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

VOLTAGE RANGE 20 to 40 Volts CURRENT 0.2 Ampere

**FEATURES**

- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability

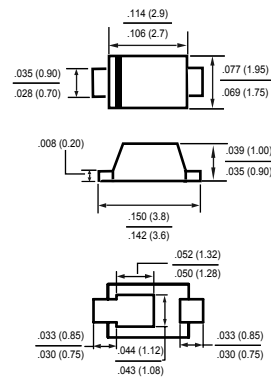
**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0
- \* Mounting position: Any
- \* Weight: 0.016 gram

NEW RELEASE



SOD-123FL



**MAXIMUM RATINGS AND ELECTRICAL 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%.

**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

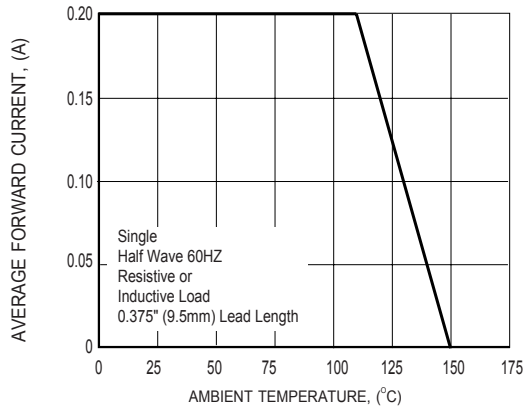
| RATINGS  | SYMBOL                      | 02SSL20L       | 02SSL30L | 02SSL40L | UNITS |
|--|-----------------------------|----------------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>            | 20             | 30       | 40       | Volts |
| Maximum RMS Voltage  | V <sub>RMS</sub>            | 14             | 21       | 28       | Volts |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>             | 20             | 40       | 40       | Volts |
| Maximum Average Forward Rectified Current<br>.375" (9.5mm) lead length at T <sub>A</sub> =110°C      | I <sub>O</sub>              | 0.2            |          |          | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | I <sub>FSM</sub>            | 60             |          |          | Amps  |
| Typical Junction Capacitance (Note1)   | C <sub>J</sub>              | 110            |          |          | pF    |
|  | R <sub>θJA</sub>            | 110            |          |          | °C/W  |
| Typical Thermal Resistance (Note 3)  | R <sub>θJL</sub>            | 30             |          |          |       |
|  | Operating Temperature Range | T <sub>J</sub> | 150      |          |       |
| Storage Temperature Range  | T <sub>STG</sub>            | -55 to + 150   |          |          | °C    |

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

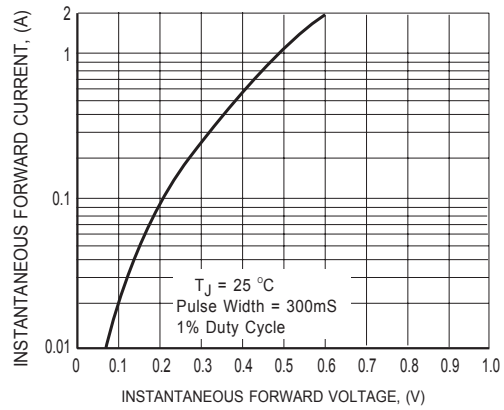
| CHARACTERISTICS   | SYMBOL                   | 02SSL20L | 02SSL30L | 02SSL40L | UNITS |
|---|--------------------------|----------|----------|----------|-------|
| Maximum Instantaneous Forward Voltage at 0.2A DC                | V <sub>F</sub>           | .28      |          |          | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | @ T <sub>A</sub> = 25°C  | 1.0      |          |          | mAmps |
|   | @ T <sub>A</sub> = 100°C | 10       |          |          | mAmps |

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
3. Thermal resistance: Mounted on PCB.

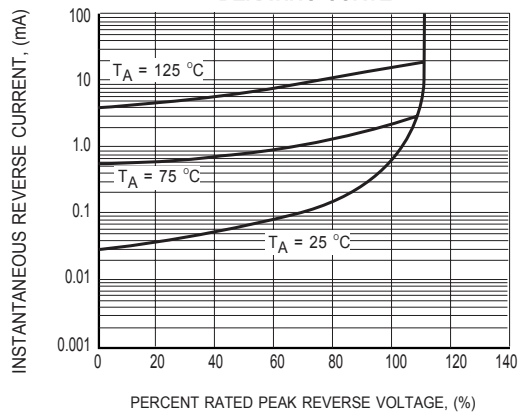
# RATING AND CHARACTERISTICS CURVES ( 02SSL20L THRU 02SSL40L )



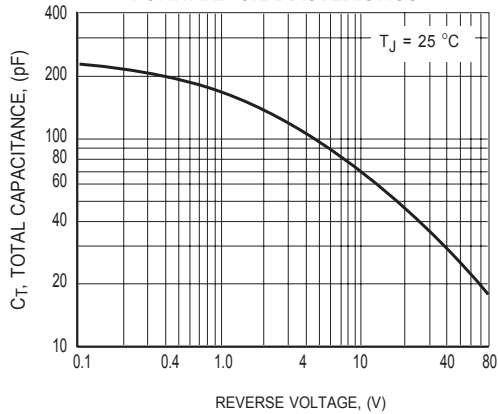
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



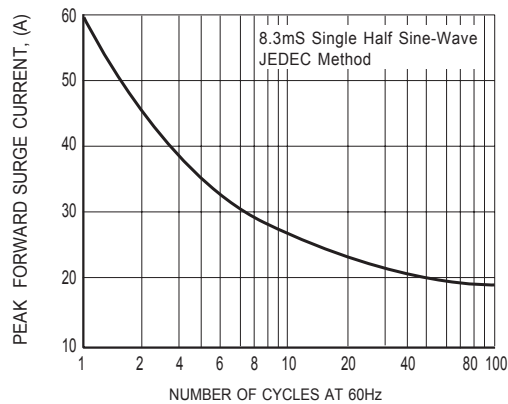
**FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**



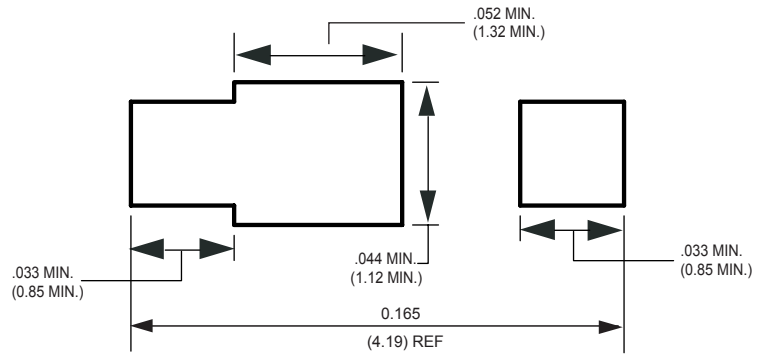
**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



## Mounting Pad Layout



Dimensions in inches and (millimeters)

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