

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 1.0 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

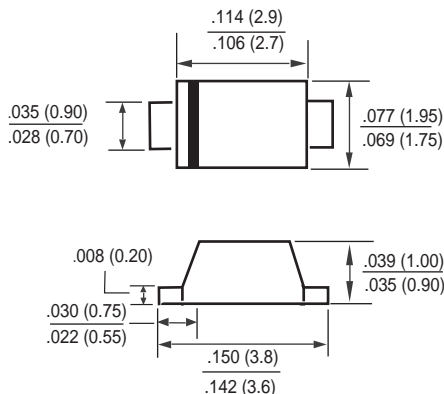
- * Epoxy: Device has UL flammability classification 94V-O
- * Mounting position: Any
- * Weight: 0.016 gram

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%.



SOD-123FL



Dimensions in inches and (millimeters)

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

| RATINGS | SYMBOL | SS2L | SS3L | SS4L | SS5L | SS6L | UNITS |
|--|--------|--------------|------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | 35 | 42 | Volts |
| Maximum DC Blocking Voltage | Vdc | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at TA=55°C | IO | 1.0 | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 20 | | | | | Amps |
| Typical Junction Capacitance (Note1) | CJ | 150 | | | | | pF |
| Operating Temperature Range | TJ | -55 to + 150 | | | | | °C |
| Storage Temperature Range | TSTG | -55 to + 150 | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | SS2L | SS3L | SS4L | SS5L | SS6L | UNITS |
|--|--------|------|------|------|------|------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | .55 | | | .70 | | Volts |
| Maximum Average Reverse Current | IR | 1.0 | | | | | mAmps |
| at Rated DC Blocking Voltage | | 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)".

2006-3

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RATING AND CHARACTERISTIC CURVES (SS2L THRU SS6L)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

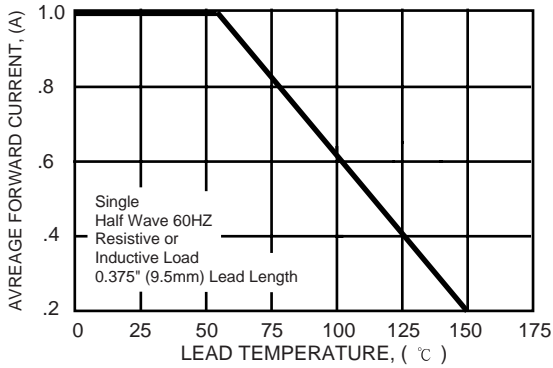


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

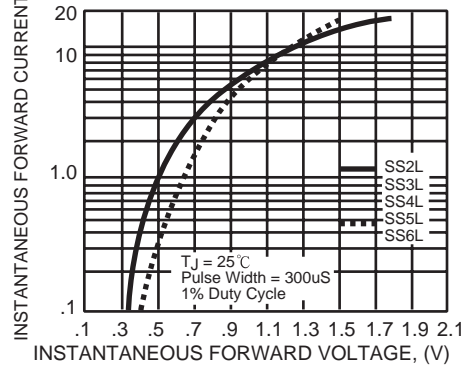


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

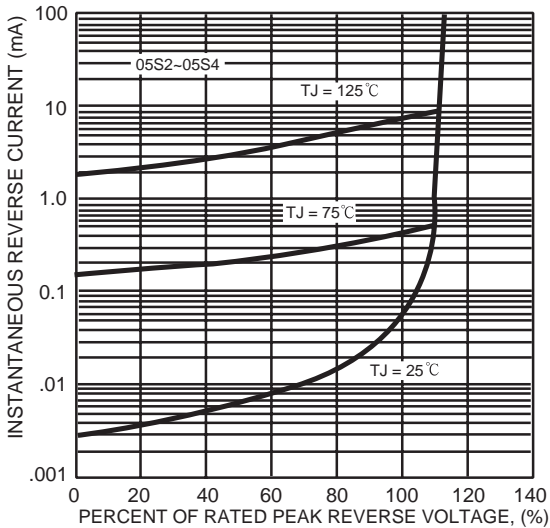


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

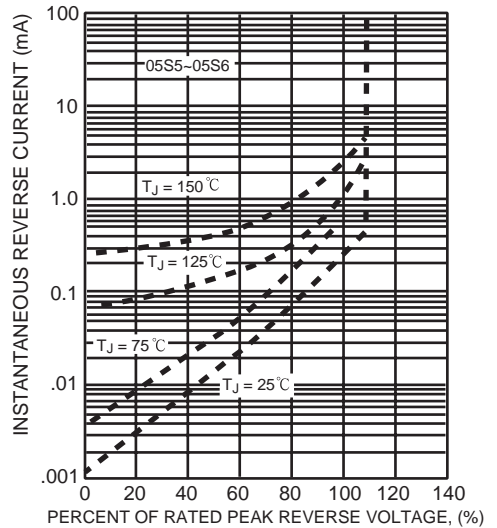


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

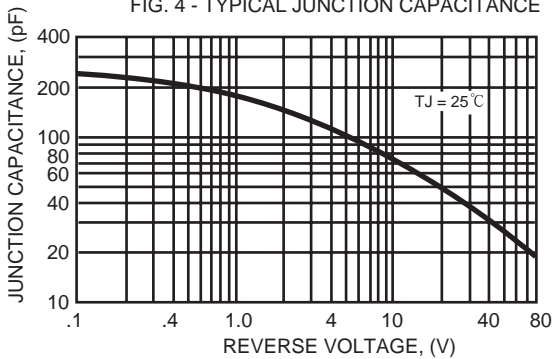
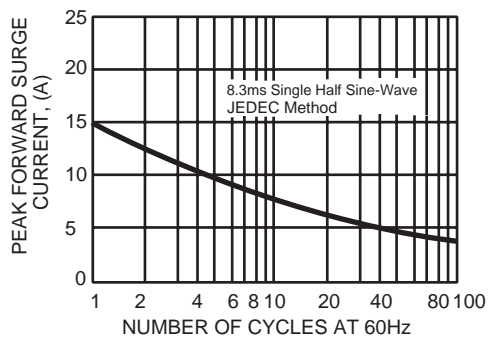
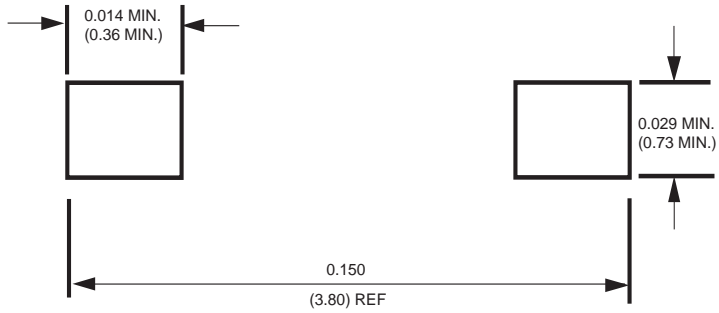


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Mounting Pad Layout



Dimensions in inches and (millimeters)