

**SCHOTTKY BARRIER RECTIFIER**

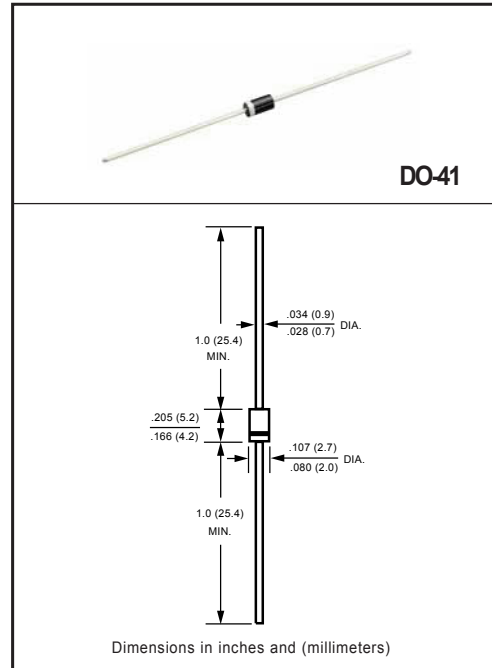
**VOLTAGE RANGE 20 to 200 Volts CURRENT 1.0 Ampere**

**FEATURES**

- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.33 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%.

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

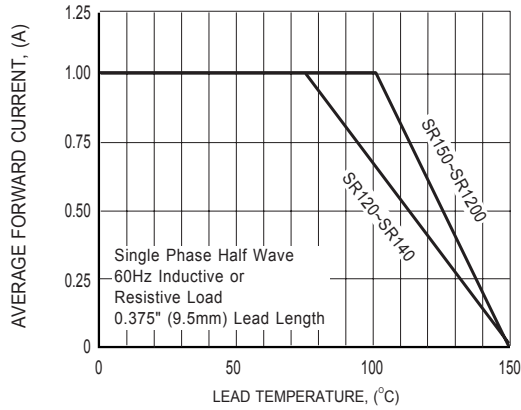
| RATINGS   | SYMBOL           | SR120        | SR130 | SR140 | SR150 | SR160 | SR180 | SR1100 | SR1150 | SR1200 | UNITS |      |
|---|------------------|--------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub> | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |      |
| Maximum RMS Voltage   | V <sub>RMS</sub> | 14           | 21    | 28    | 35    | 42    | 56    | 70     | 105    | 140    | Volts |      |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>  | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |      |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            | I <sub>O</sub>   | 1.0          |       |       |       |       |       |        |        |        |       | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 40           |       |       |       |       |       |        |        |        |       | Amps |
| Typical Thermal Resistance (Note 1)   | R <sub>θJA</sub> | 50           |       |       |       |       |       |        |        |        |       | °C/W |
|   | R <sub>θJL</sub> | 15           |       |       |       |       |       |        |        |        |       |      |
| Typical Junction Capacitance (Note 3)   | C <sub>J</sub>   | 110          |       |       |       |       |       |        |        |        |       | pF   |
| Operating Temperature Range   | T <sub>J</sub>   | 150          |       |       |       |       |       |        |        |        |       | °C   |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to + 150 |       |       |       |       |       |        |        |        |       | °C   |

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

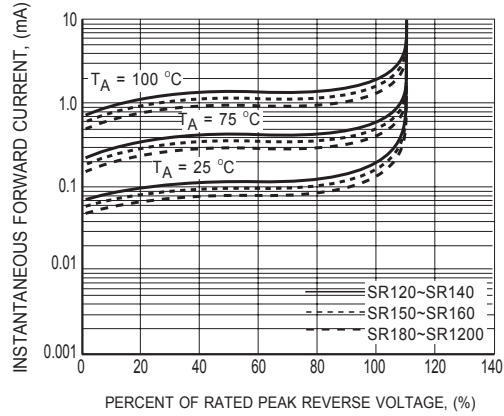
| CHARACTERISTICS  | SYMBOL         | SR120                   | SR130 | SR140 | SR150 | SR160 | SR180 | SR1100 | SR1150 | SR1200 | UNITS |
|--|----------------|-------------------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC             | V <sub>F</sub> | .55                     |       |       | .70   |       | .85   |        |        |        | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | I <sub>R</sub> | @T <sub>A</sub> = 25°C  |       | 0.2   |       |       |       |        |        |        | mA    |
|  |                | @T <sub>A</sub> = 100°C |       | 2     |       |       |       |        |        |        | mA    |

NOTES : 1. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

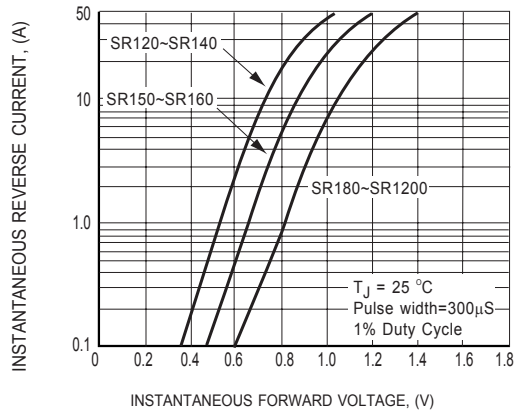
## RATING AND CHARACTERISTICS CURVES ( SR120 THRU SR1200 )



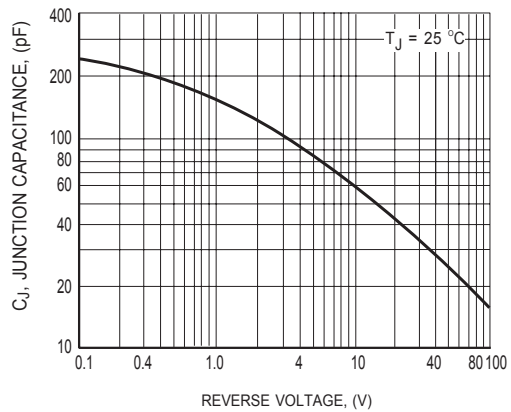
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



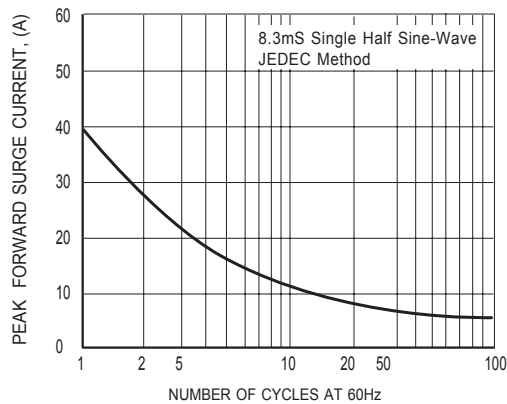
**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



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