

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 16.0 Ampere

FEATURES

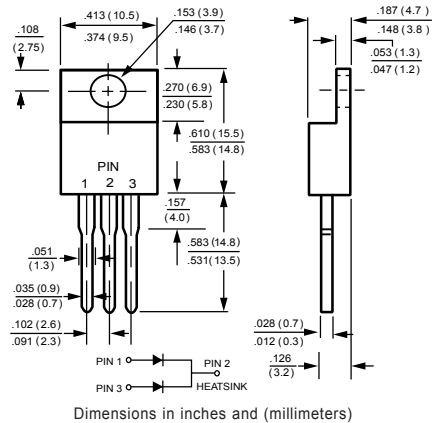
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: To-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams



TO-220



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 | SR1620C | SR1630C | SR1635C | SR1640C | SR1645C | SR1650C | SR1660C | SR1680C | SR16100C | SR16150C | SR16200C | UNITS | |
|---|------------------|--------------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|-------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 25 | 28 | 32 | 35 | 42 | 56 | 70 | 105 | 140 | Volts | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum Average Forward Rectified Current at Derating Case Temperature | I _O | 16.0 | | | | | | | | | | | Amps | |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150 | | | | | | | | | | | Amps | |
| Typical Thermal Resistance (Note 1) | R _{qJC} | 2.0 | | | | | | | | | | | °C/W | |
| | R _{qJA} | 40 | | | | | | | | | | | | |
| Typical Junction Capacitance (Note 3) | C _J | 700 | | | | | 500 | | | | | | | pF |
| Operating Temperature Range | T _J | 150 | | | | | | | | | | | °C | |
| Storage Temperature Range | T _{STG} | -55 to + 150 | | | | | | | | | | | °C | |

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

| CHARACTERISTICS | SYMBOL | SR1620C | SR1630C | SR1635C | SR1640C | SR1645C | SR1650C | SR1660C | SR1680C | SR16100C | SR16150C | SR16200C | UNITS | |
|--|----------------|-------------------------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|-------|-------|
| Maximum Instantaneous Forward Voltage at 8.0A DC | V _F | .65 | | | | | .75 | | | .85 | | | | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | I _R | @T _A = 25°C | | | | | | | | | | | mA | |
| | | @T _A = 100°C | | | | | | | | | | | 2 | mA |

- NOTES : 1. Thermal Resistance : Heat-sink mounted.
2. Suffix "A" = Common Anode.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts. □
4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (SR1620C THRU SR16200C)

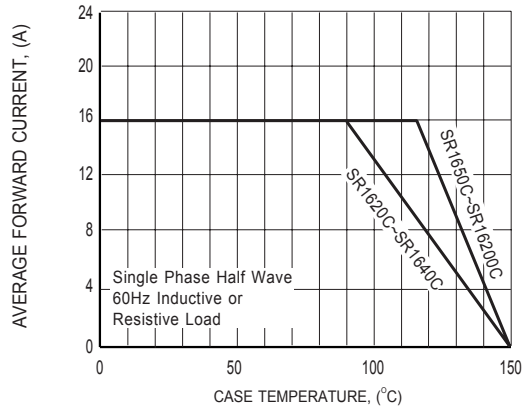


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

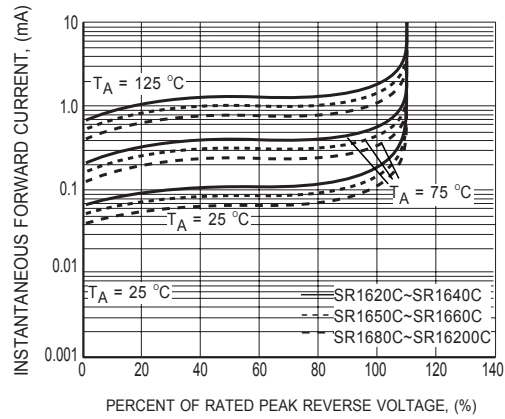


FIG.2 TYPICAL REVERSE CHARACTERISTICS

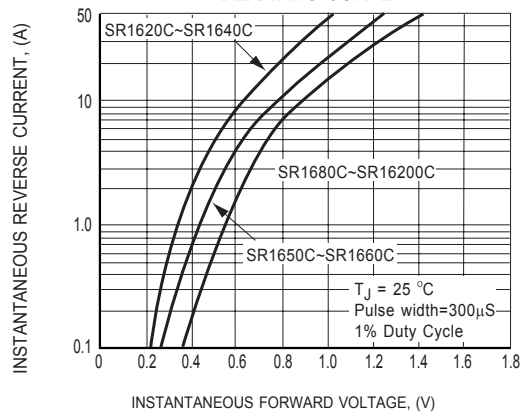


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

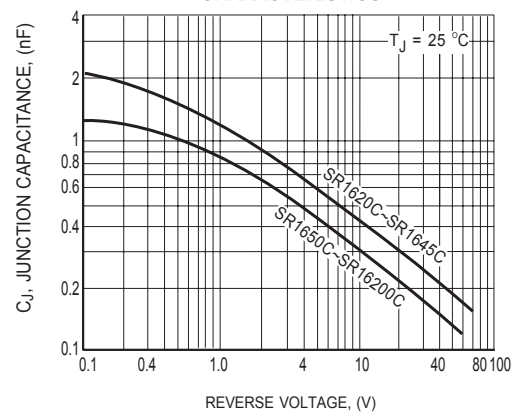


FIG.4 TYPICAL JUNCTION CAPACITANCE

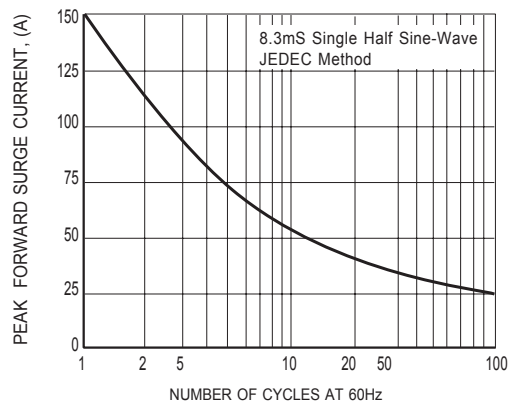


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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