



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SR5020
THRU
SR5060

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 60 Volts

CURRENT - 50 Amperes

FEATURES

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

MECHANICAL DATA

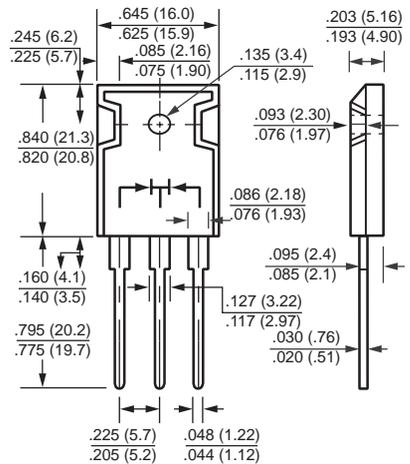
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 5.6 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.



TO-3P



| | SYMBOL | SR5020 | SR5030 | SR5040 | SR5050 | SR5060 | UNITS |
|--|------------------|-------------------------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum Average Forward Rectified Current at Derating Case Temperature | I _O | 50 | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 300 | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 25.0A DC | V _F | .65 | | | .75 | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I _R | @T _C = 25°C | | | | | mAmps |
| | | @T _C = 100°C | | | | | mAmps |
| Typical Thermal Resistance (Note 1) | R _{θJC} | 1.2 | | | | | °C/W |
| Operating Temperature Range | T _J | -65 to + 150 | | | | | °C |
| Storage Temperature Range | T _{STG} | -65 to + 150 | | | | | °C |

NOTES : 1. Thermal Resistance Junction to Case per leg.
2. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (SR5020 THRU SR5060)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

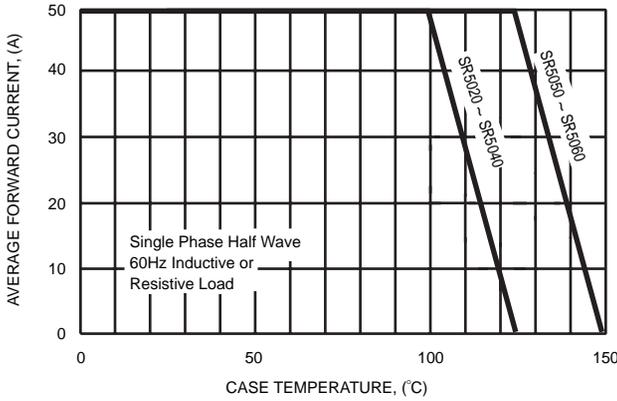


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

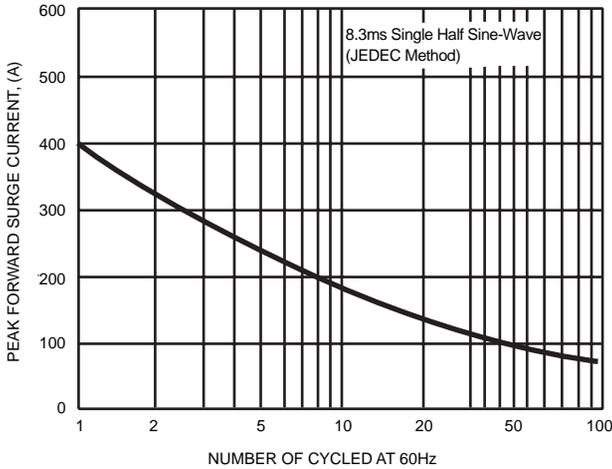


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

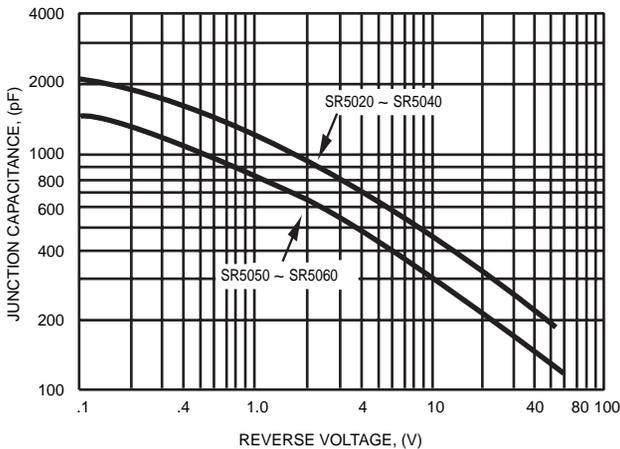


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

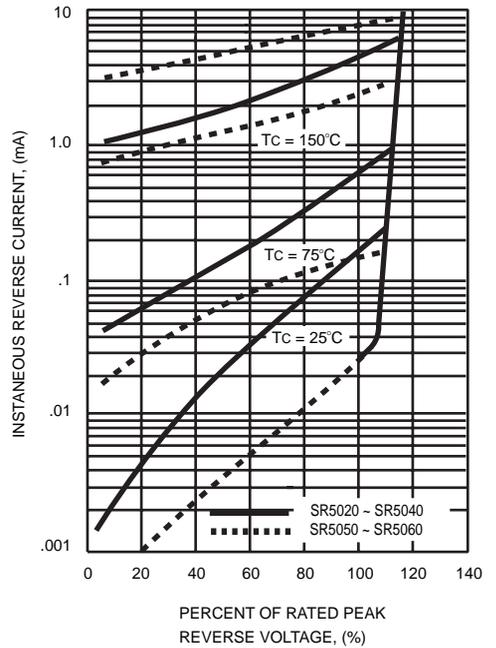
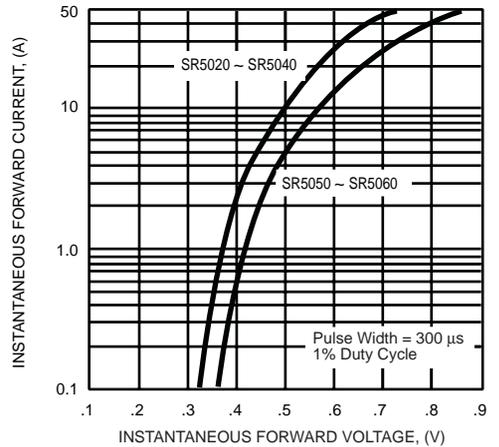


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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