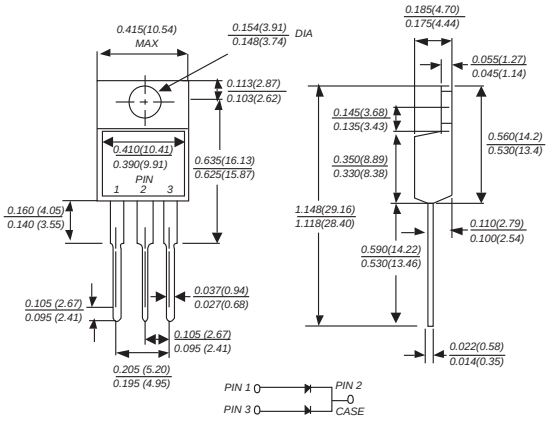
# SR1620C THRU SR16A0C

## SCHOTTKY BARRIER RECTIFIER

*Reverse Voltage - 20 to 100 Volts  Forward Current - 16.0 Amperes*

**TO-220AB**




*Dimensions in inches and (millimeters)*

## FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃,0.25"(6.35mm) from case for 10 seconds

## MECHANICAL DATA

**Case**: TO-220AB molded plastic body
**Terminals**: Leads solderable per MIL-STD-750, Method 2026
**Polarity**: As marked
**Mounting Position**: Any
**Weight**:0.080 ounce, 2.24 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| | *SYMBOLS* | SR 1620C | SR 1630C | SR 1640C | SR 1645C | SR 1650C | SR 1660C | SR 1670C | SR 1680C | SR 1690C | SR 16A0C | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | VOLTS |
| Maximum RMS voltage | $V_{RMS}$ | 14 | 21 | 28 | 32 | 35 | 42 | 49 | 56 | 63 | 70 | VOLTS |
| Maximum DC blocking voltage | $V_{DC}$ | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | VOLTS |
| Maximum average forward rectified current (see fig.1) | $I_{(AV)}$ | 16.0 | | | | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 150.0 | | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 8.0A | $V_F$ | 0.65 | | | | 0.75 | | 0.85 | | | | Volts |
| Maximum DC reverse current $T_A$=25℃ | $I_R$ | 1.0 | | | | | | | | | | mA |
| at rated DC blocking voltage $T_A$=100℃ | | 15.0 | | | | 50.0 | | | | | | |
| Typical junction capacitance (NOTE 1) | $C_J$ | 500 | | | | 360 | | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{qJC}$ | 2.0 | | | | | | | | | | °C/W |
| Operating junction temperature range | $T_J$ | -65 to +125 | | | | -65 to +150 | | | | | | °C |
| Storage temperature range | $T_{STG}$ | -65 to +150 | | | | | | | | | | °C |

**Note:**1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to case

# RATINGS AND CHARACTERISTIC CURVES SR1620C THRU SR16A0C

FIG. 1- FORWARD CURRENT DERATING CURVE

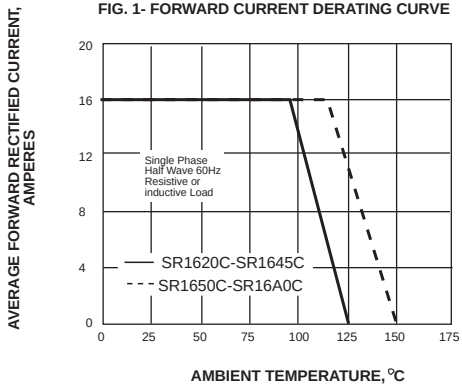



FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

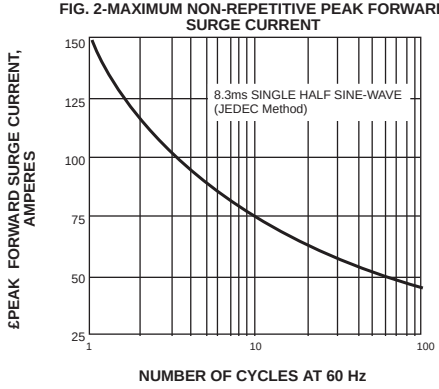



FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

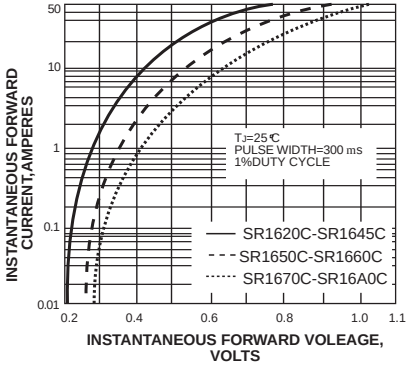



FIG. 4-TYPICAL REVERSE CHARACTERISTICS

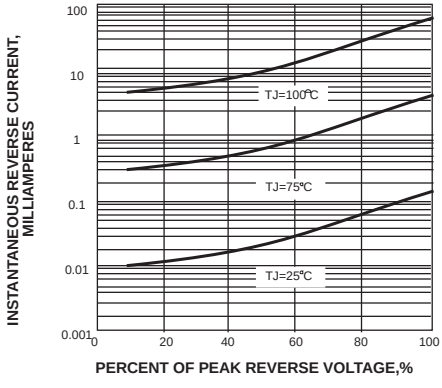



FIG. 5-TYPICAL JUNCTION CAPACITANCE

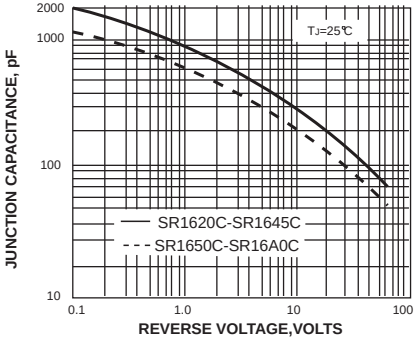



FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

