# SCHOTTKY BARRIER RECTIFIER

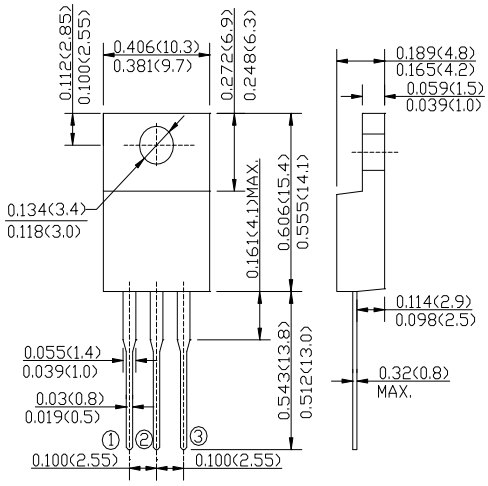
## SR1620CT THRU SR16200CT 20 to 200 V 16.0A

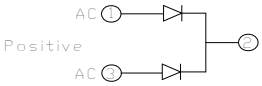
Central Plate Electronics Co.,Ltd.

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling , and polarity protection applications Dual rectifier construction
- High temperature soldering guaranteed:260° C/10 seconds,,
- 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and
- WEEE 2002/96/EC

TO-220AB




Dimensions in inches and (millimeters)

## Mechanical Data

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solder able per MIL-STD-750,method 2026
- Polarity: As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position: Any
- Weight: 0.08ounce,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, derate current by 20%.

| | Symbols | SR 1620 CT | SR 1640 CT | SR 1645 CT | SR 1650 CT | SR 1660 CT | SR 1680 CT | SR 16100 CT | SR 16150 CT | SR 16200 CT | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 16 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 14 | 28 | 31.5 | 35 | 42 | 57 | 71 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 16 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum average forward rectified current see Fig.1 | $I_{(AV)}$ | 16.0 | | | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 200 | | | | | | | | | Amp |
| Maximum instantaneous forward voltage at 10.0 A(Note 1 ) | $V_F$ | 0.60 | | | 0.75 | | 0.85 | | 0.90 | 0.95 | Volts |
| Maximum Reverse Current $T_A$=25℃ | $I_R$ | 0.5 | | | | | | | | | mA |
| at Rated DC Blocking Voltage $T_A$=125℃ | | 30 | | | | 50 | | | | | |
| Typical Thermal Resistance (Note 2 ) | $R_{\theta}$ JC | 3.0 | | | | | | | | | ℃/W |
| Operating Temperature Range | $T_J$ | -65 to +125 | | | | | -65 to +150 | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -65 to +150 | | | | | | | | | ℃ |

**NOTES:**

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Thermal resistance from junction to case

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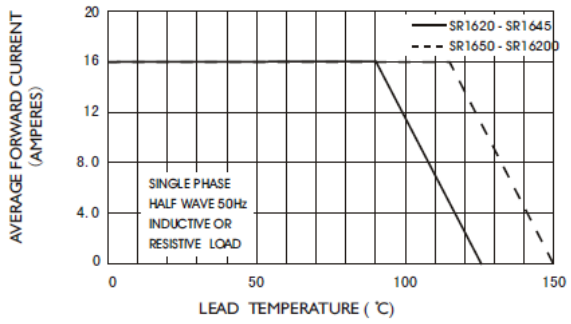
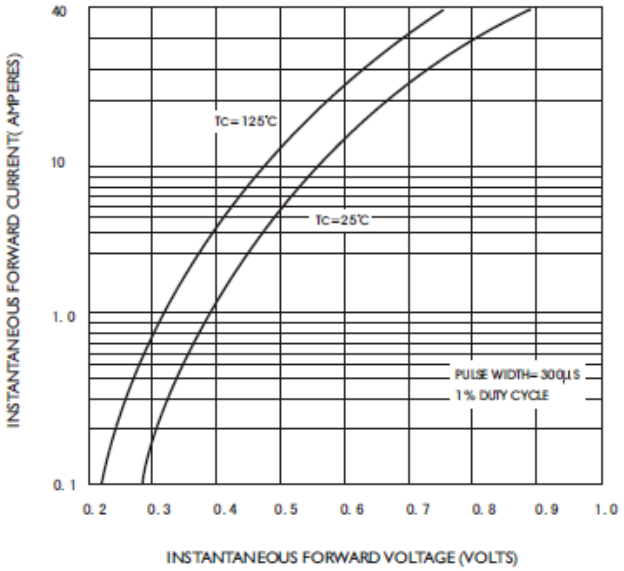
## RATINGS AND CHARACTERISTIC CURVES (SR1616CT THRU SR16200CT)

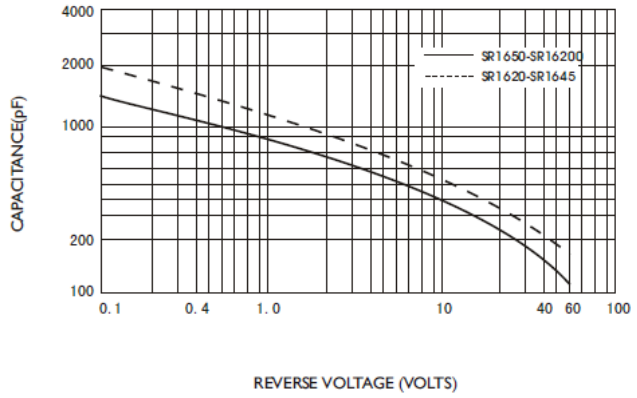
### FIG.1-FORWARD CURRENT DERATING CURVE



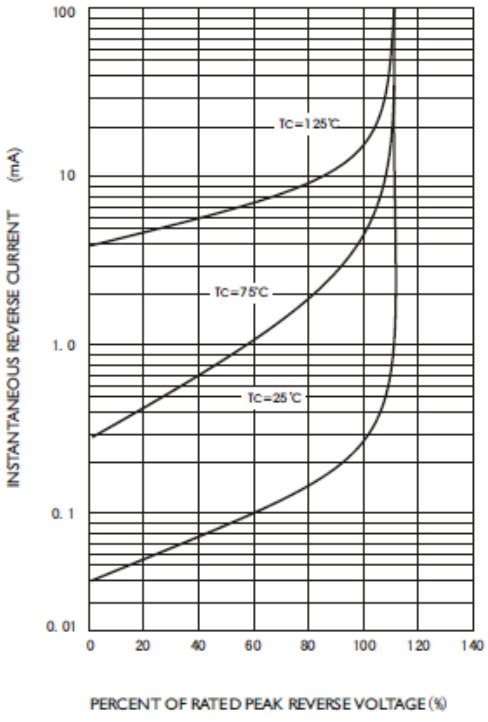

### FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS




### FIG.4-TYPICAL JUNCTION CAPACITANCE




### FIG.3-TYPICAL REVERSE CHARACTERISTICS




### FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT