

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 200 V  
CURRENT:16.0A

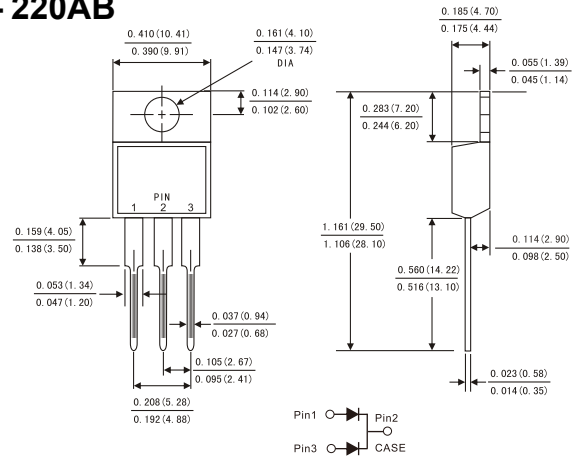
### FEATURES

- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

- ◇ Case:JEDEC TO-220AB, molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.08ounces,2.24 grams
- ◇ Mounting position: Any

### TO - 220AB



### 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 by 20%.

|  | Symbols                | SR 1620CT   | SR 1630CT | SR 1640CT | SR 1650CT | SR 1660CT | SR 1680CT | SR 16100CT | SR 16150CT | SR 16200CT | Units |
|--|------------------------|-------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|-------|
| Maximum repetitive 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(see Fig.1)   | Per leg                | 8.0         |           |           |           |           |           |            |            |            | Amps  |
|  | Total device           | 16.0        |           |           |           |           |           |            |            |            |       |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>       | 200.0       |           |           |           |           |           |            |            |            | Amps  |
| Maximum instantaneous forward voltage at 16.0 A  | V <sub>F</sub>         | 0.60        |           | 0.75      |           | 0.85      |           | 0.90       |            | 0.95       | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)                       | T <sub>c</sub> = 25°C  | 0.2         |           |           |           |           |           |            |            |            | mA    |
|  | T <sub>c</sub> = 125°C | 30          |           |           | 50        |           |           |            |            |            |       |
| Typical thermal resistance (Note 2)  | R <sub>θJC</sub>       | 3.0         |           |           |           |           |           |            |            |            | °C/W  |
| Operating junction temperature range   | T <sub>J</sub>         | -65 to +150 |           |           |           |           |           |            |            |            | °C    |
| Storage temperature range  | T <sub>STG</sub>       | -65 to +150 |           |           |           |           |           |            |            |            | °C    |

- NOTE: 1. Pulse test:300us pulse width,1% duty cycle.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal resistance junction to ambient

FIG.1-FORWARD CURRENT DERATING CURVE

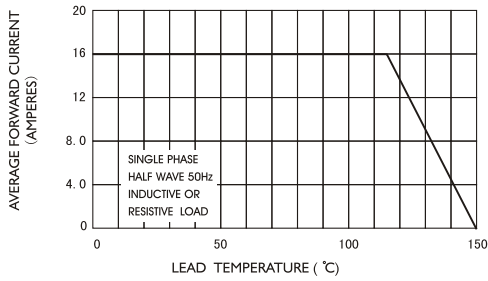


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

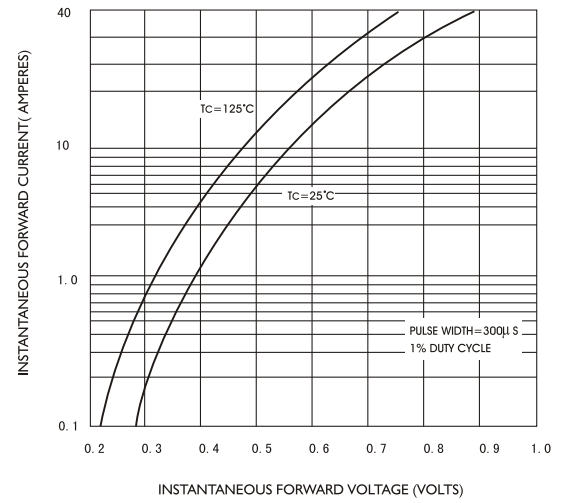


FIG.4-TYPICAL JUNCTION CAPACITANCE

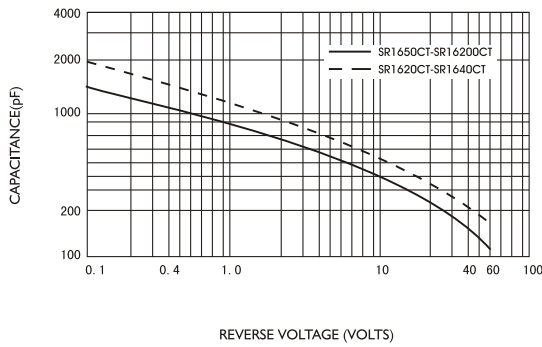


FIG.3-TYPICAL REVERSE CHARACTERISTICS

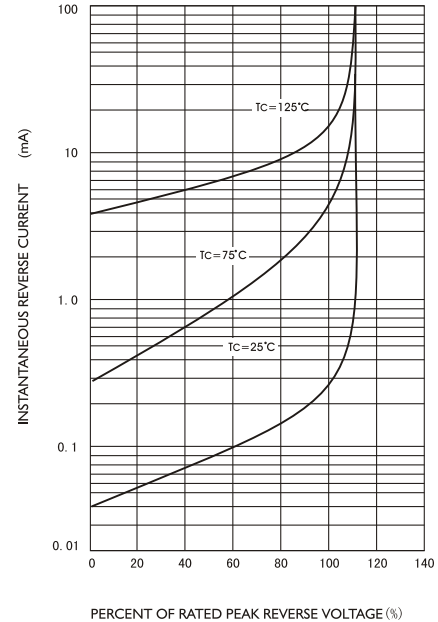


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

