

SR1620CS THRU SR1660CS

# SCHOTTKY BARRIER RECTIFIER

# **VOLTAGE RANGE 20 to 60 Volts CURRENT 16 Amperes**

#### **FEATURES**

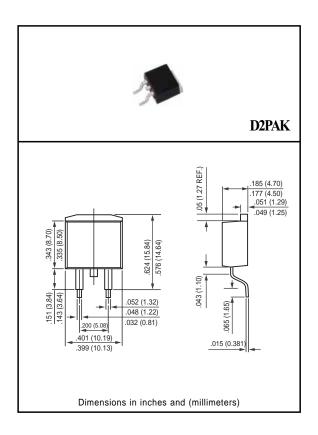
- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High switching capability
- \* High surge capabitity
- \* High reliability

#### **MECHANICAL DATA**

- \* Case: To-220 molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any \* Weight: 2.2 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^{\circ}$ 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 (At TA = 25°C unless otherwise noted)

| RATINGS   | SYMBOL | SR1620CS                  | SR1630CS | SR1635CS | SR1640CS | SR1645C | SR1650CS | SR1660CS | UNITS |
|---|--------|---------------------------|----------|----------|----------|---------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 20                        | 30       | 35       | 40       | 45      | 50       | 60       | Volts |
| Maximum RMS Voltage   | VRMS   | 14                        | 21       | 25       | 28       | 32      | 35       | 42       | Volts |
| Maximum DC Blocking Voltage   | VDC    | 20                        | 30       | 35       | 40       | 45      | 50       | 60       | Volts |
| Maximum Average Forward Rectified Current at Derating Case Temperature                            | lo     | 16                        |          |          |          |         |          | Amps     |       |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM   | 150                       |          |          |          |         |          | Amps     |       |
| Typical Thermal Resistance (Note 1)   | RθJC   | 3                         |          |          |          |         |          | °C/W     |       |
| Typical Junction Capacitance (Note 3)   | CJ     | 700 500                   |          |          | 00       | pF      |          |          |       |
| Operating Temperature Range   | TJ     | -65 to + 125 -65 to + 150 |          |          | + 150    | ٥C      |          |          |       |
| Storage Temperature Range   | Тѕтс   | -65 to + 150              |          |          |          | ٥C      |          |          |       |

### **ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

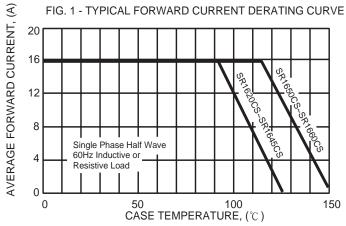
| CHARACTERISTICS                                  |             | SYMBOL | SR1620CS SR1630CS SR1635C | S SR1640CS SR1645CS | SR1650CS SR1660CS | UNITS |  |
|--|-------------|--------|---------------------------|---------------------|-------------------|-------|--|
| Maximum Instantaneous Forward Voltage at 8.0A DC |             | VF     | .65                       | .75                 | Volts             |       |  |
| Maximum Average Reverse Current                  | @Tc = 25°C  | ls.    | 10                        |                     |                   |       |  |
| at Rated DC Blocking Voltage                     | @Tc = 100°C | IK IK  | 100                       |                     |                   |       |  |

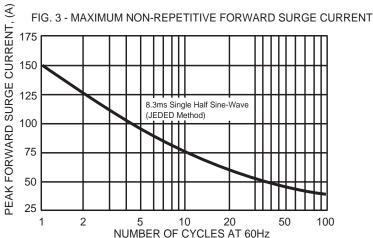
NOTES: 1. Thermal Resistance Junction to Case.

- 2. Suffix "A" = Common Anode.
- 3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2001-3

# RATING AND CHARACTERISTIC CURVES (SR1620CS THRU SR1660CS)





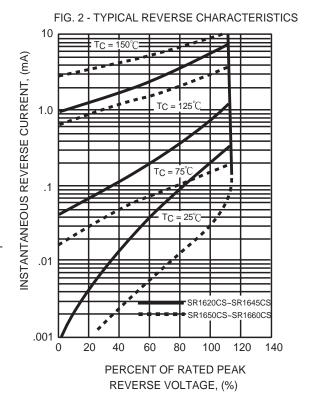


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

