

| Voltage | Current | | |
|-------------|---------|--|--|
| 20 to 150 V | 16.0 A | | |

FEATURES

- Ideal for automated placement
- Low power losses, high efficiency
- High surge current capability
- Guarding for overvoltage protection
- Low forward voltage drop
- Solder dip 260°C, 10s / 17" (4.3 mm) from case
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

MECHANICAL DATA

- Case: TO-3P (TO-247AD). Epoxy meets UL 94V-0 flammability rating.
- Polarity: As marked on the body.
- Mounting Torque: 10 in-lbs maximum.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

TYPICAL APPLICATIONS

Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.

Maximun Ratings and Electrical Characteristics at 25°C

| | | SR 1620PT | SR 1640PT | SR 1660PT | SR 16100PT | SR 16150PT |
|---------------------|---|-----------------------------------|--------------|--------------|---------------|---------------|
| V_{RRM} | Maximum Recurrent Peak Reverse Voltage (V) | 2) 20 40 60 100 15 | | | 150 | |
| V _{RMS} | Maximum RMS Voltage (V) 14 28 42 70 | | 105 | | | |
| V_{DC} | Maximum DC blocking voltage (V) | 20 | 40 | 60 | 100 | 150 |
| I _{F (AV)} | Maximum Average Forward Rectified Current See Fig. | 16 A | | | | |
| I _{FSM} | Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) | 200 A | | | | |
| C _j | Typical Junction Capacitance at 1 MHz and Applied Reverse Voltage of 4.0 V D.C. | 700 pF 400 pF | | | | |
| Tj | Operating Junction Temperature Range | - 65 to + 125 °C - 65 to + 150 °C | | + 150 °C | | |
| T _{stg} | Storage Temperature Range | − 65 to +150 °C | | | | |

Electrical Characteristics at Tamb = 25 °C

| V _F | Maximum Instantaneous Forward Voltage @ 8.0A (Note 2) | 0.55 V | 0.70 V | 0.90 V | 1.0 V |
|--------------------|---|---------------|----------|--------|-------|
| | Maximum D.C. Reverse Current @ T _C =25 °C | 0.5 mA | | 0.1 mA | |
| IR | at Rated DC Blocking Voltage @ T _C =100 °C | C 15 mA 10 mA | | 5 r | nΑ |
| R _{thj-C} | Typical Thermal Resistance Per Leg (Note 1) | | 3.0 °C/W | | |

Notes: 1. Thermal Resistance from junction to Case Per Leg, With Heatsink Size of 50.4 mm x 76.2 mm x 6.35 mm Al-Plate.

Revision: 1

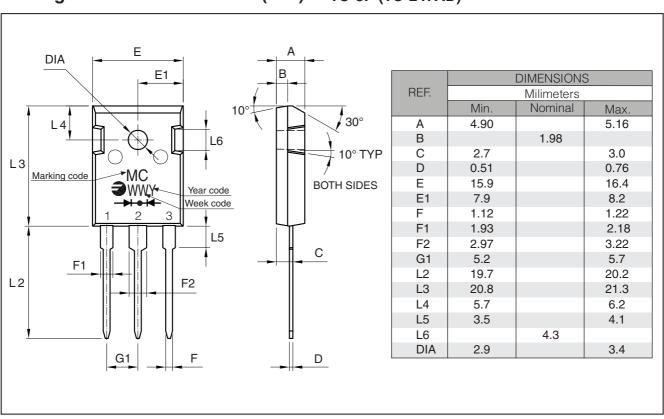
2. 300µs Pulse Width, 2% Duty Cycle



Ordering information

| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE | BASE QUANTITY | UNIT WEIGHT (g) |
|-----------------|--------------|---------------|---------------|-----------------|
| SR1660PTC 00TUC | TU | TUBE | 900 | 6.12 |

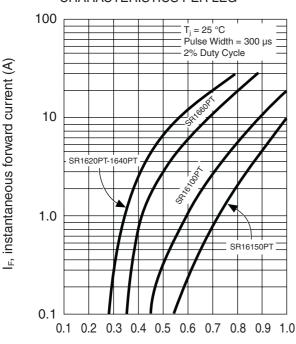
Package Outline Dimensions: (mm) TO-3P (TO-247AD)





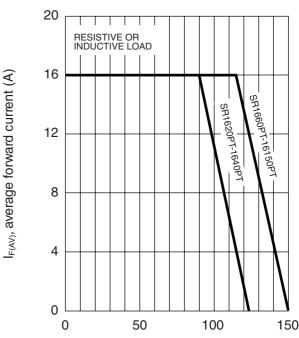
Ratings and Characteristics (Ta 25 °C unless otherwise noted)

TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG



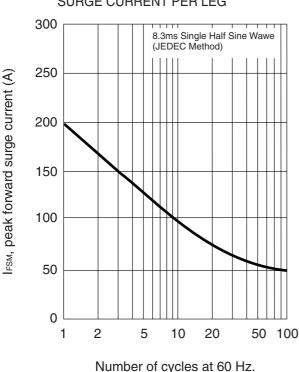
V_F, instantaneous forward voltage (V)

MAXIMUM FORWARD CURRENT DERATING CURVE

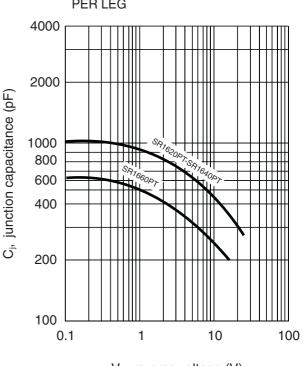


T_C, case temperature (°C)

MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

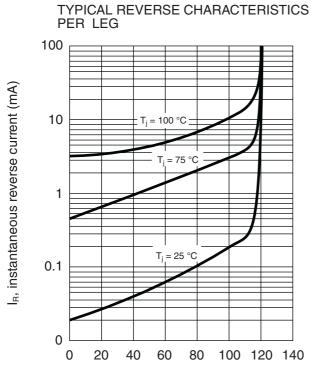


TYPICAL JUNCTION CAPACITANCE PER LEG

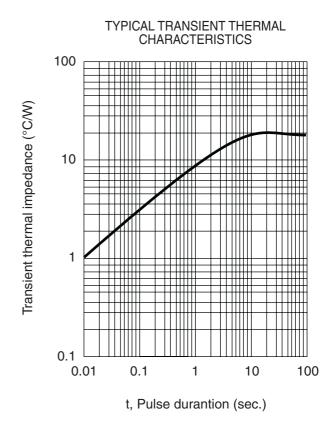




Ratings and Characteristics (Ta 25 °C unless otherwise noted)











Revision History

| Date | Revision | Description of Changes |
|-------------|----------|------------------------|
| 15-Jul-2009 | 0 | Original Data Sheet |
| 23-Sep-2016 | 1 | Format update |

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