

SR735 THRU SR760(SINGLE CHIP)

7.5AMPS. SCHOTTKY BARRIER RECTIFIERS

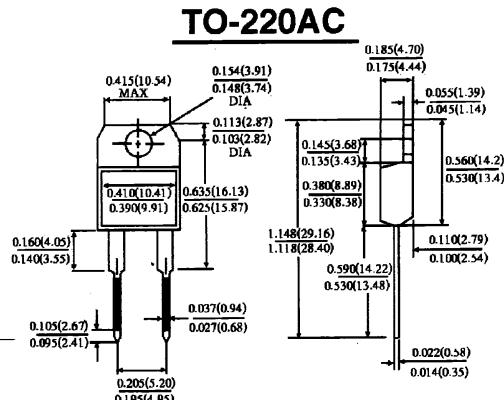


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V - O
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 seconds,
- 0.25"(6.35mm) from case

MECHANICAL DATA

- Case: JEDEC TO - 220AC molded plastic body
- Terminals: Lead solderable per MIL - STD - 750, method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.)

| | Symbols | SR735 | SR745 | SR750 | SR760 | Units |
|--|-----------------|-------------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 35 | 45 | 50 | 60 | Volts |
| Maximum RMS voltage | V_{RMS} | 25 | 32 | 35 | 42 | Volts |
| Maximum DC blocking voltage | V_{DC} | 35 | 45 | 50 | 60 | Volts |
| Maximum average forward rectified current (see Fig.1) | $I_{(AV)}$ | 7.5 | | | | Amps |
| Repetitive peak forward current(square wavr, 20KHZ) at $T_c = 105^\circ C$ | I_{FRM} | 15.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine - wave superimposed on rated load (JE- DEC method) | I_{FSM} | 150.0 | | | | Amps |
| Maximum instantaneous forward voltage at 7.5 A(Note 1) | V_F | 0.65 | | 0.75 | | Volts |
| Maximum instantaneous reverse current at rated DC blocking vol- lage(Note 1) | I_R | 1.0 | | | | mA |
| | | 15 | | 50 | | |
| Typical thermal resistance (Note 2) | $R_{\theta JC}$ | 2.5 | | | | °C/w |
| Operating junction temperature range | T_J | -65 to +150 | | | | °C |
| Storage temperature range | T_{STG} | -65 to +150 | | | | °C |

Notes: 1. Pulse fest:300μ s pulse width, 1% duty cycle

2. Thermal resistance from junction to case

FIG. 1 – FORWARD CURRENT DERATING CURVE

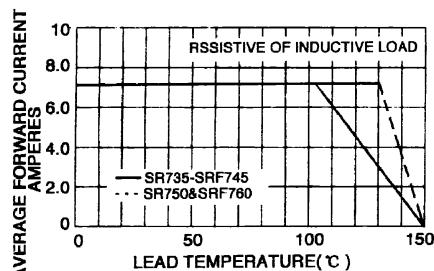


FIG. 2 – MAXIMUM NON – REPETITIVE PEAK FORWARD SURGE CURRENT

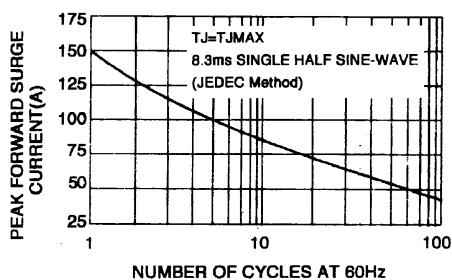


FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

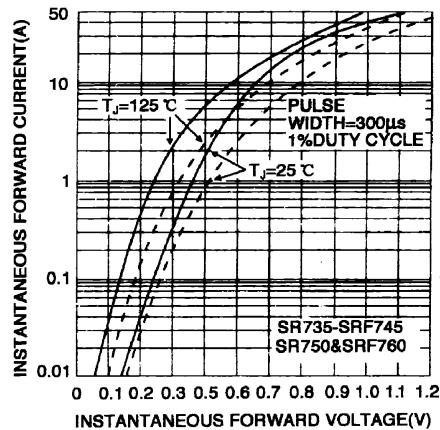


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

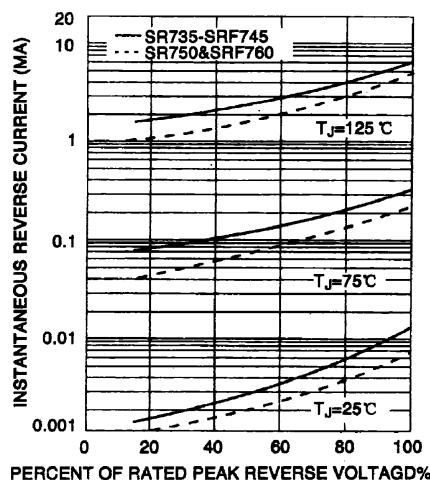


FIG. 5 – TYPICAL JUNCTION CAPACITANCE

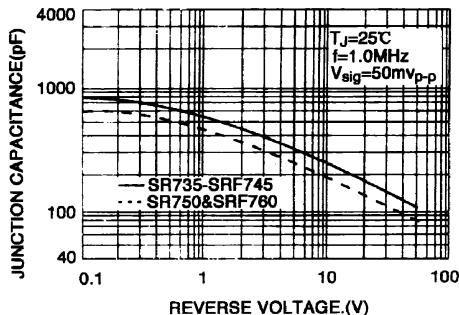


FIG. 6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

