

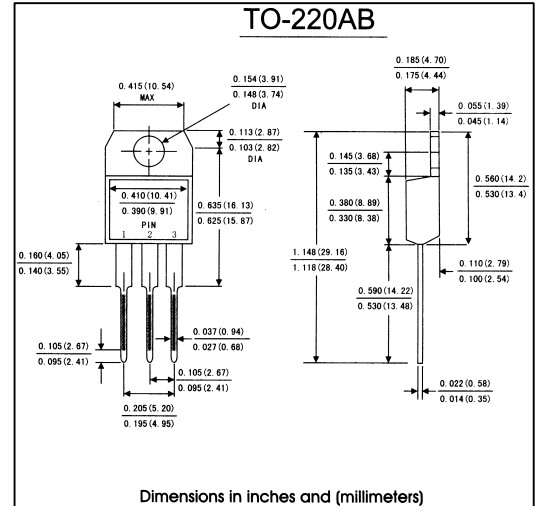
FEATURES

- 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: 250°C/10 seconds

0.25"(6.35mm)from case

MECHANICAL DATA

- Case:** JEDEC DO-220AB molded plastic body
- Terminals:** lead solderable per MIL-STD-750,method 2026
- Polarity:** As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position:** Any
- Weight:** 0.08 ounce, 2.24 grams



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 | SR1620 | SR1630 | SR1640 | SR1650 | SR1660 | SR1680 | SR16A0 | Units |
|--|-------------------|-------------|--------|--------|-------------|--------|--------|--------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 57 | 71 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum average forward rectified current(see Fig.1) | I _(AV) | 16.0 | | | | | | | Amps |
| Repetitive peak forward current(square wave, 20KHz) at T _c =105°C | I _{FRM} | 32.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 10 A(Note 1) | V _F | 0.65 | | | 0.75 | | 0.80 | 0.85 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | TA=25°C | 1.0 | | | | | | | mA |
| | TA=125°C | 30 | | | 50 | | | | |
| Typeical thermal resistance(Note 2) | R _θ JC | 3.0 | | | | | | | °C/W |
| Operating junction temperature range | T _J | -65 to +125 | | | -65 to +150 | | | | °C |
| storage temperature range | T _{STG} | -65 to +150 | | | | | | | °C |

Notes: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SR1620 THRU SR16A0

FIG.1-FORWARD CURRENT DERATING CURVE

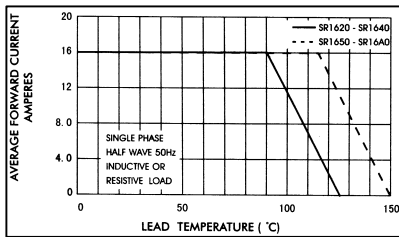


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

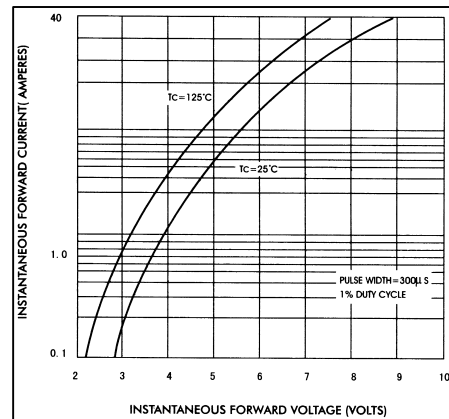


FIG.4-TYPICAL JUNCTION CAPACITANCE

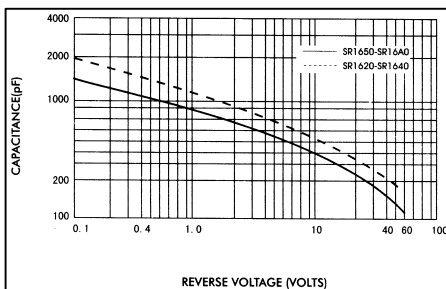


FIG.3-TYPICAL REVERSE CHARACTERISTICS

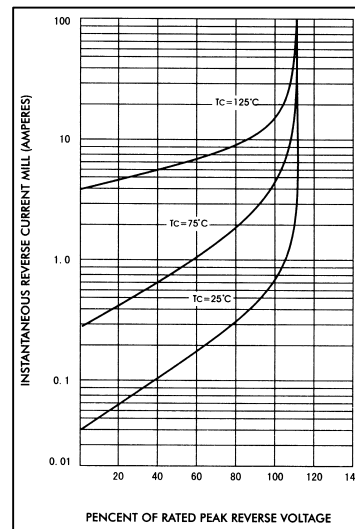


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

