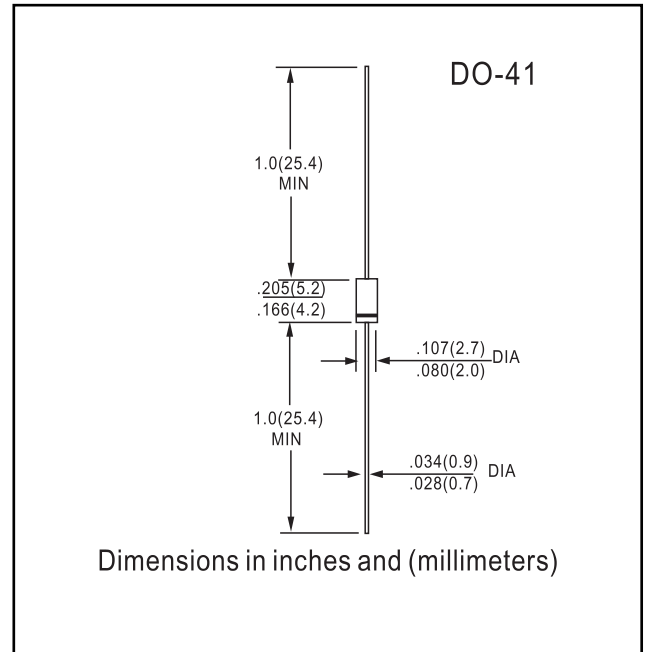


FEATURES

- 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
- High temperature soldering guaranteed:260°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014ounce, 0.39 gram



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 | SR 120 | SR 130 | SR 140 | SR 150 | SR 160 | SR 180 | SR 1A0 | SR 1150 | SR 1200 | Units |
|--|-----------------------|------------|--------|--------|------------|--------|--------|--------|---------|---------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 57 | 71 | 105 | 140 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum average forward rectified current 0.375"(9.5mm) lead length(see Fig. 1) | I(AV) | 1.0 | | | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 40.0 | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0 A(Note 1) | V _F | 0.55 | | 0.70 | | 0.85 | | 0.90 | | 0.95 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | T _a =25°C | 0.5 | | | | | | | | | mA |
| | T _a =100°C | 10 | | | | | | | | | |
| Typical junction capacitance(Note 3) | C _J | 110 | | | | | | | | | pF |
| Typical thermal resistance(Note 2) | R _{θJA} | 50.0 | | | | | | | | | °C/W |
| | R _{θJL} | 15.0 | | | | | | | | | |
| 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 ambient)Vertical P.C.B. mounted , with 1.5 X1.5"(38X38mm)copper pads

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES SR120 THRU SR1200

FIG.1-FORWARD CURRENT DERATING CURVE

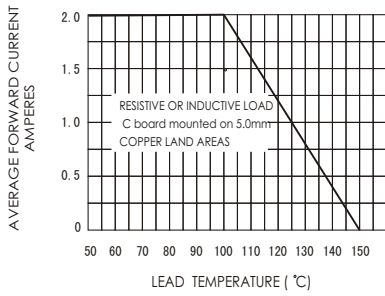


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

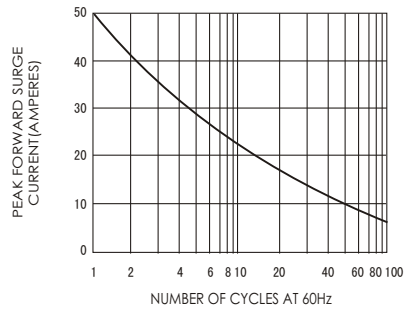


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

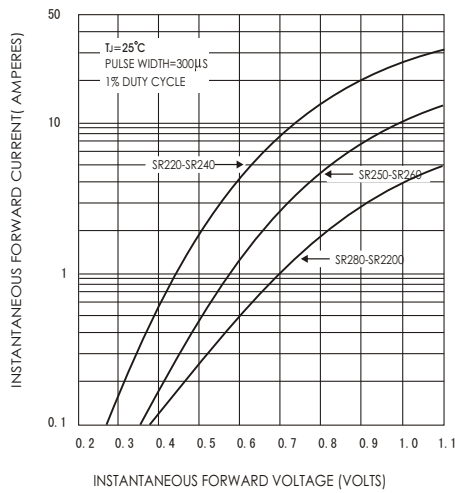


FIG.4-TYPICAL REVERSE CHARACTERISTICS

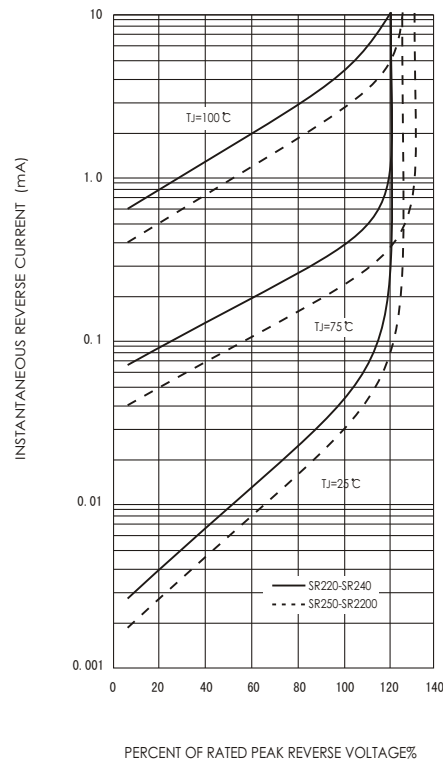


FIG.5-TYPICAL JUNCTION CAPACITANCE

