

SR5100L



5.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

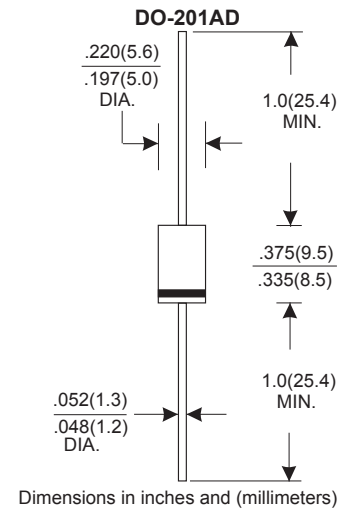
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.10 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn, 5~20%Pb
- * Pb free: 99 Sn above can meet Rohs environment substance directive request

VOLTAGE RANGE

100 Volts

CURRENT

5.0 Ampere



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| MDD Catalog Number | SYMBOLS | SR5100L | UNITS |
|--|-----------------|----------------------------|-------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 100 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 75 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 100 | VOLTS |
| Maximum average forward rectified current 0.375" (9.5mm) lead length(see fig.1) | $I_{(AV)}$ | 5.0 | 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 5.0A | V_F | 0.68 | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^{\circ}C$ 0.5 | mA |
| | | $T_A=100^{\circ}C$ 10.0 | |
| Typical junction capacitance (NOTE 1) | C_J | 380 | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 42.0 | °C/W |
| Operating junction temperature range | T_J | -65 to +150 | °C |
| Storage temperature range | T_{STG} | -65 to +150 | °C |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES SR5100L

FIG.1-TYPICAL FORWARD CHARACTERISTICS

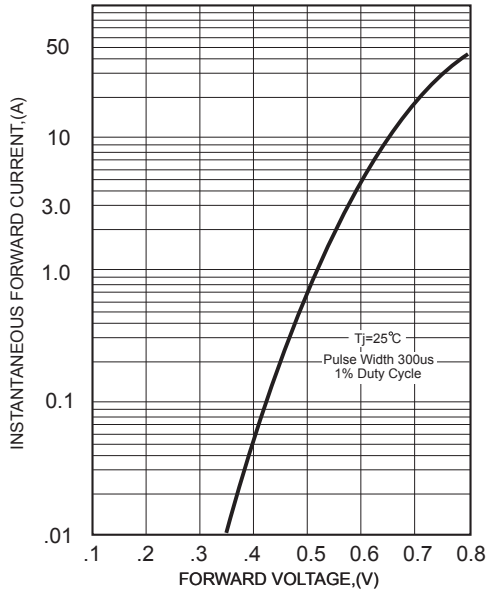


FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

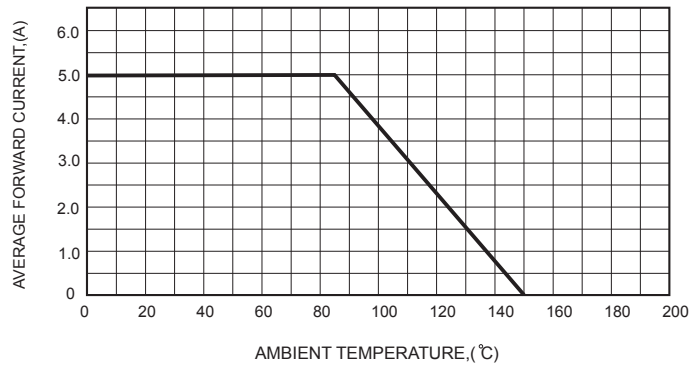


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

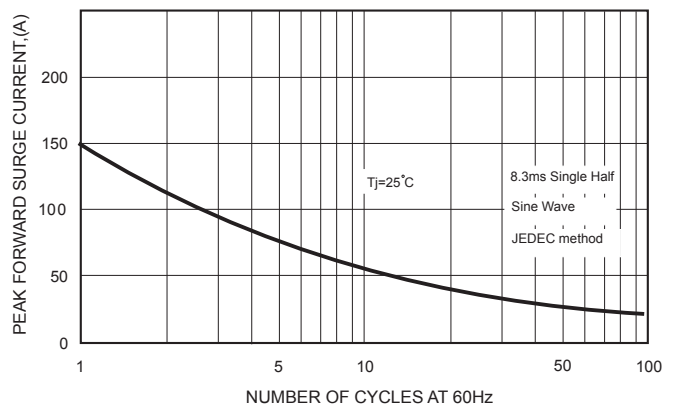


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

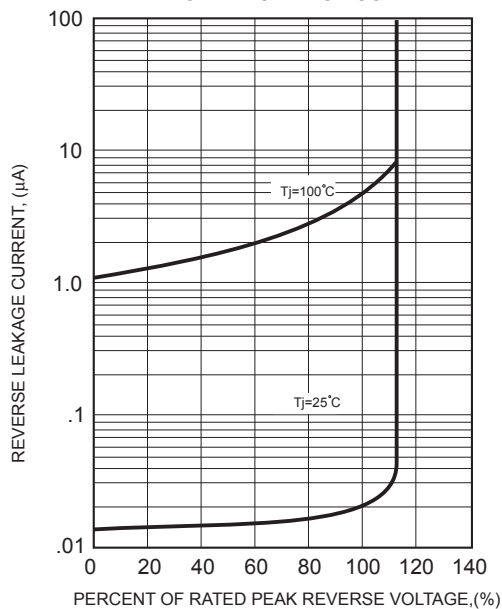


FIG.4-TYPICAL JUNCTION CAPACITANCE

