



SR520 THRU SR5200

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

SCHOTTKY BARRIER RECTIFIER

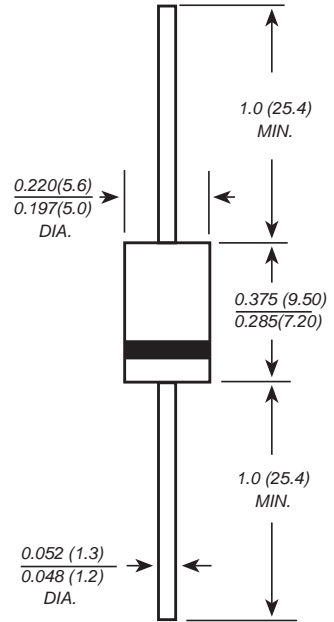
Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case : JEDEC DO-201AD Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.04 ounce, 1.10 grams

DO-201AD



Dimensions in inches and (millimeters)

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%.

| Parameter | SYMBOLS | SR 520 | SR 530 | SR 540 | SR 550 | SR 560 | SR 570 | SR 580 | SR 590 | SR 5100 | SR 5150 | SR 5200 | UNITS | |
|--|-----------------|-------------|------------|------------|------------|------------|-------------|------------|------------|-------------|-------------|-------------|-------|----|
| Marking Code | | MDD SR 520 | MDD SR 530 | MDD SR 540 | MDD SR 550 | MDD SR 560 | MDD SR 570 | MDD SR 580 | MDD SR 590 | MDD SR 5100 | MDD SR 5150 | MDD SR 5200 | | |
| Maximum repetitive peak reverse voltage | V_{RMM} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 150 | 200 | V | |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 105 | 140 | V | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 150 | 200 | V | |
| Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1) | $I_{(AV)}$ | 5.0 | | | | | | | | | | | A | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 150 | | | | | | | | | | | A | |
| Maximum instantaneous forward voltage at 5.0A | V_F | 0.55 | | 0.70 | | | 0.85 | | | 0.95 | | | V | |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=100^\circ C$ | I_R | 0.5 | | | | | 0.2 | | | | | | mA | |
| | | 20.0 | | | 10.0 | | | 2.0 | | | | | | |
| Typical junction capacitance (NOTE 1) | C_J | 500 | | | 400 | | | | | | | | pF | |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 25.0 | | | | | | | | | | | °C/W | |
| Operating junction and storage | T_J | -65 to +125 | | | | | -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



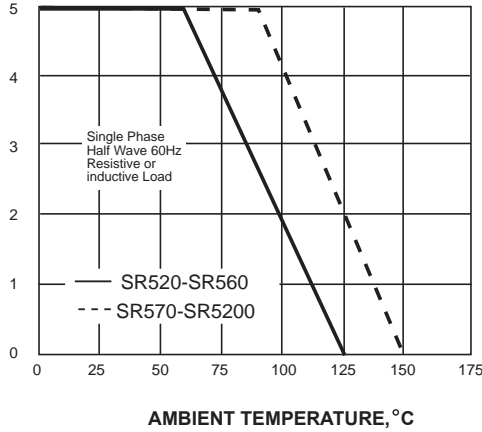
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Ratings And Characteristic Curves

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

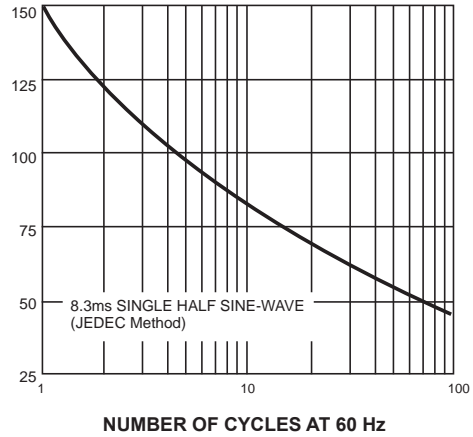


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

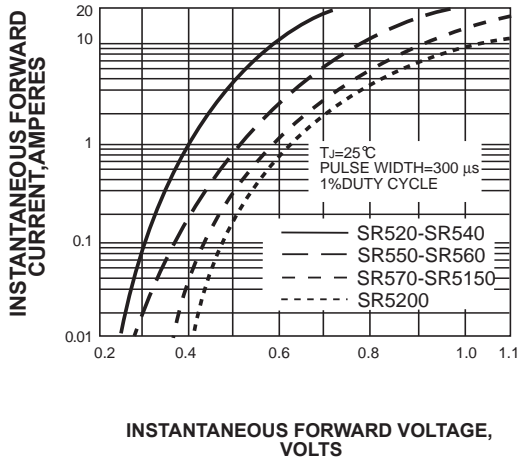


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

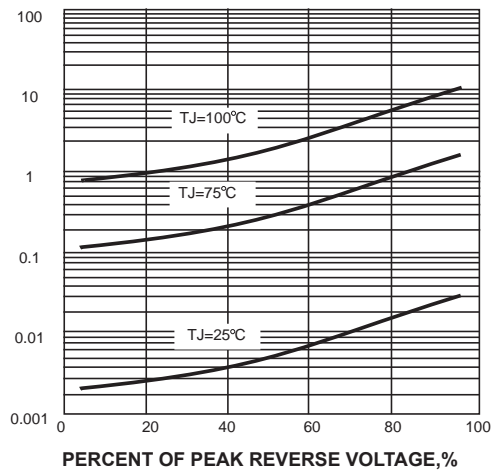
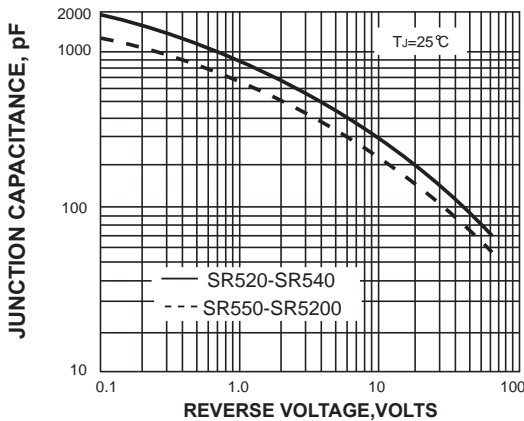
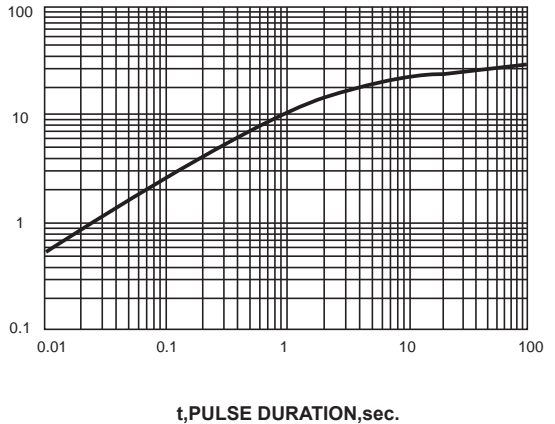


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

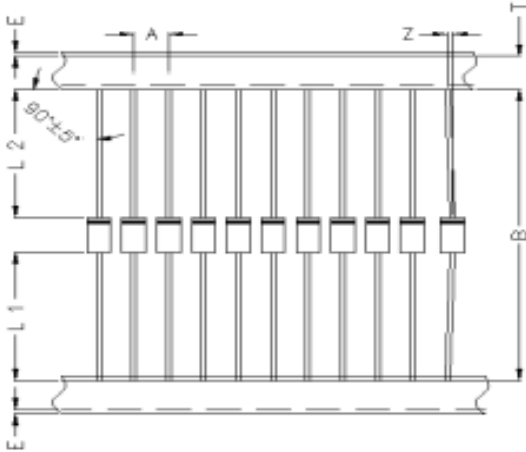


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Package Information

Taping Specifications



| Item | Symbol | Specifications(mm) |
|---------------------|--------|--------------------|
| Component Pitch | A | 10.0±0.5 |
| Inner Tape Pitch | B | 52.4±1.5 |
| Component alignment | Z | 1.2 Max |
| Tape width | T | 6.0±0.5 |
| Exposed adhesive | E | 0.8 Max |
| Body eccentricity | L1-L2 | 1.0 Max |

Ammunition Package Specifications

| Package | Inner Box Size (mm) | QTY/Box (pcs) | Carton Size (mm) | Q'TY/Carton (pcs) |
|------------|---------------------|---------------|------------------|-------------------|
| DO - 201AD | 255*74*145 | 1000 | 410*275*340 | 10000 |

Bulk Package Specifications

| Package | Inner Box Size (mm) | QTY/Box (pcs) | Carton Size (mm) | Q'TY/Carton (pcs) |
|------------|---------------------|---------------|------------------|-------------------|
| DO - 201AD | 198*86*21 | 200 | 460*220*250 | 10000 |

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