

Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

Features

- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O



* *In compliance with EU RoHs 2002/95/EC directives*
 The marking is indicated by part no. with. "M". ex:SR302M~SR306M

MAXIMUM RATINGS

| Characteristic | Symbol | SR | | | | | Unit |
|---|---------------------------------|--------------------------------------|-----|-----|-----|-----|------|
| | | 302 | 303 | 304 | 305 | 306 | |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 20 | 30 | 40 | 50 | 60 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | V |
| Average Rectifier Forward Current | I_O | 3.0 | | | | | A |
| Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz) | I_{FSM} | 75 | | | | | A |
| Junction Operating Temperature Range Storage Temperature (1) | T_J T_{STG} | -65 to +150 20~35 °C 、 30%~60% RH | | | | | °C |

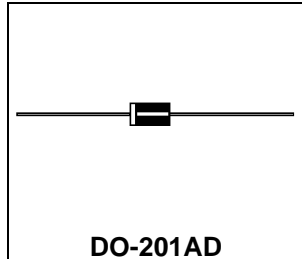
(1)expired date : 1 year

ELECTRIAL CHARACTERISTICS

| Characteristic | Symbol | SR | | | | | Unit |
|--|--------|-----------|-----|-----|-------|-----|------|
| | | 302 | 303 | 304 | 305 | 306 | |
| Maximum Instantaneous Forward Voltage ($I_F = 3.0$ Amp) | V_F | 0.550 | | | 0.700 | | V |
| Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$) | I_R | 0.5 20 | | | | | mA |
| Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz) | C_P | 210 | | | 190 | | pF |

SCHOTTKY BARRIER RECTIFIERS

**3.0 AMPERES
20-60 VOLTS**



| DIM | MILLIMETERS | |
|-----|-------------|------|
| | MIN | MAX |
| A | 5.00 | 5.60 |
| B | 25.40 | --- |
| C | 7.20 | 9.50 |
| D | 1.20 | 1.30 |

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

SR302 Thru SR306

FIG-1 FORWARD CURRENT DERATING CURVE

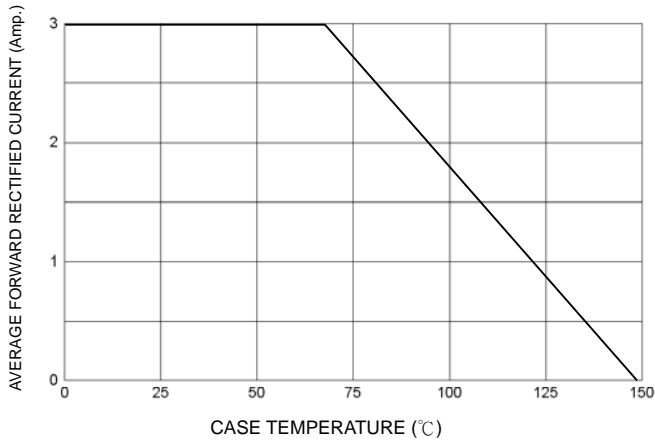


FIG-2 TYPICAL FORWARD CHARACTERISTICS

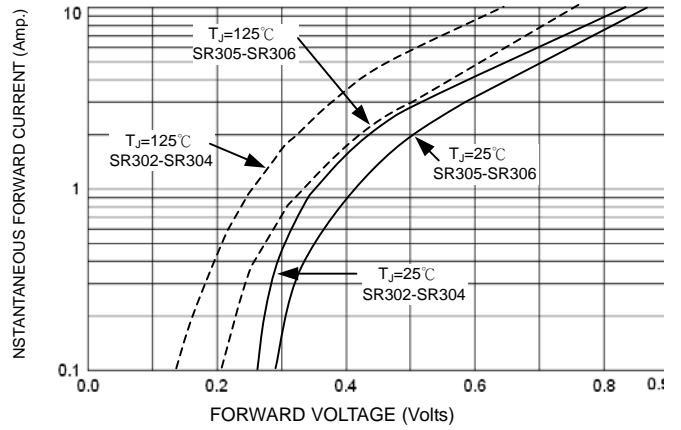


FIG-3 TYPICAL REVERSE CHARACTERISTICS

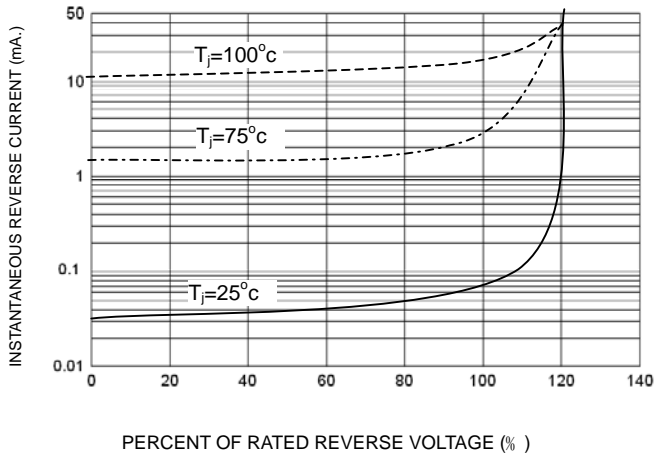


FIG-4 TYPICAL JUNCTION CAPACITANCE

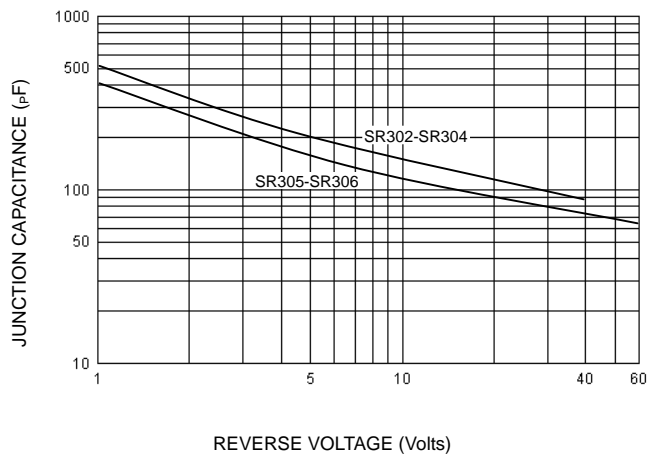
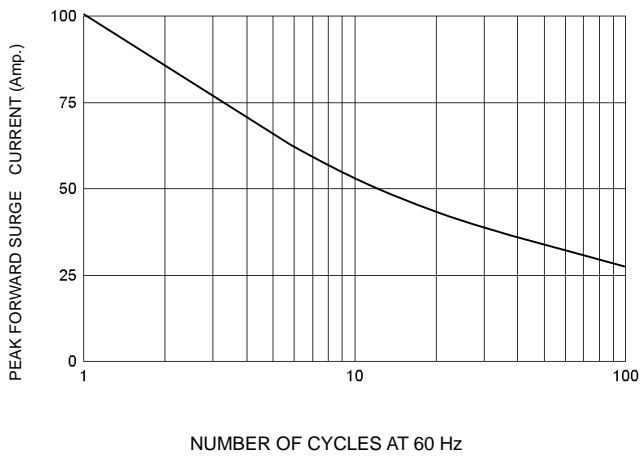


FIG-5 PEAK FORWARD SURGE CURRENT



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