## Schottky Barrier Rectifiers

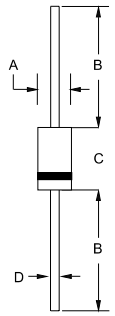
Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

* Low Forward Voltag.
* Low Switching noise.
* High Current Capacity
* Guarantee Reverse Avalance.
* Guard-Ring for Stress Protection.
* Low Power Loss & High efficiency.
* 125 °C Operating Junction Temperature
* Low Stored Charge Majority Carrier Cnduction.
* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

**SCHOTTKY BARRIER RECTIFIERS**

**5.0 AMPERES**
**70 -100 VOLTS**

**DO-201AD**




| DIM | MILLMETERS | |
|---|---|---|
| | MIN | MAX |
| A | 5.00 | 5.60 |
| B | 25.40 | --- |
| C | 8.50 | 9.50 |
| D | 1.20 | 1.30 |

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

### MAXIMUM RATINGS

| Characteristic | Symbol | SR | | | | Unit |
|---|---|---|---|---|---|---|
| | | 507 | 508 | 509 | 5100 | |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 70 | 80 | 90 | 100 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 49 | 56 | 63 | 70 | V |
| Average Rectifier Forward Current | $I_o$ | 5 | | | | A |
| Non-Repetitive Peak Surge Current<br>( Surge applied at rate load conditions halfware,single phase,60Hz ) | $I_{FSM}$ | 125 | | | | A |
| Operating and Storage Junction Temperature Range | $T_j$ , $T_{stg}$ | - 65 to + 125 | | | | °C |

### ELECTRICAL CHARACTERISTICS

| Characteristic | Symbol | SR | | | | Unit |
|---|---|---|---|---|---|---|
| | | 507 | 508 | 509 | 5100 | |
| Maximum Instantaneous Forward Voltage<br>( $I_F$=5 Amp ) | $V_F$ | 0.75 | | 0.85 | | V |
| Maximum Instantaneous Reverse Current<br>( Rated DC Voltage, $T_C$ = 25 °C)<br>( Rated DC Voltage, $T_C$ = 125 °C) | $I_R$ | 1.0<br>30 | | | | mA |
| Typical Junction Capacitance<br>( Reverse Voltage of 4 volts & f=1 MHz) | $C_P$ | 300 | | 275 | | pF |

# SR507 , SR508

FIG-1 FORWARD CURRENT DERATING CURVE

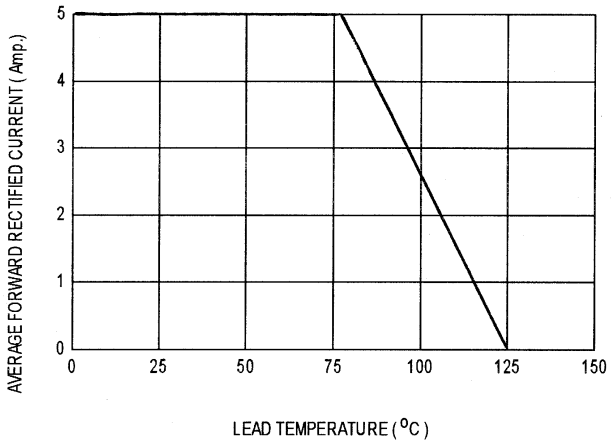



FIG-2 TYPICAL FORWARD CHARACTERISTICS

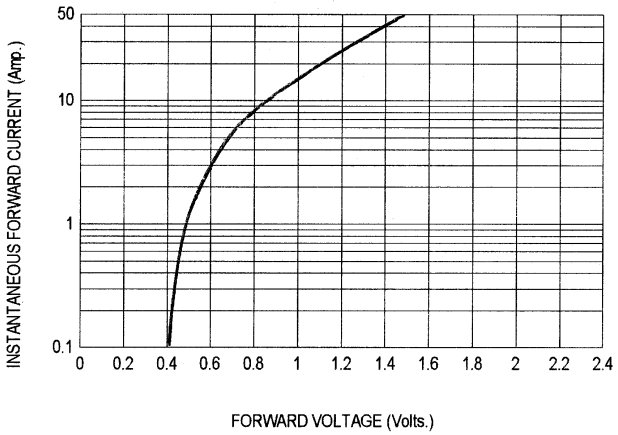



FIG-3 TYPICAL REVERSE CHARACTERISTICS

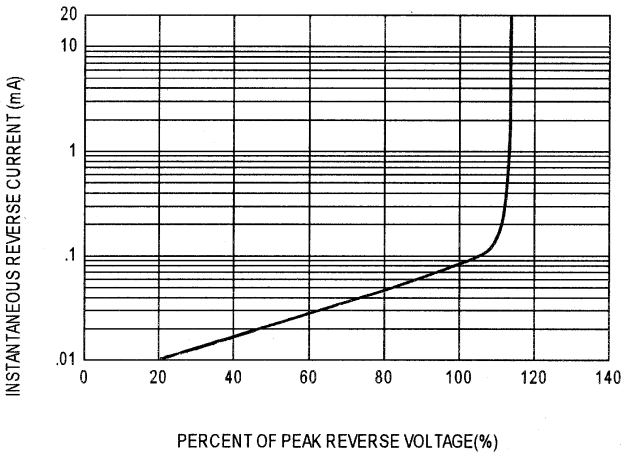



FIG-4 TYPICAL JUNCTION CAPACITANCE

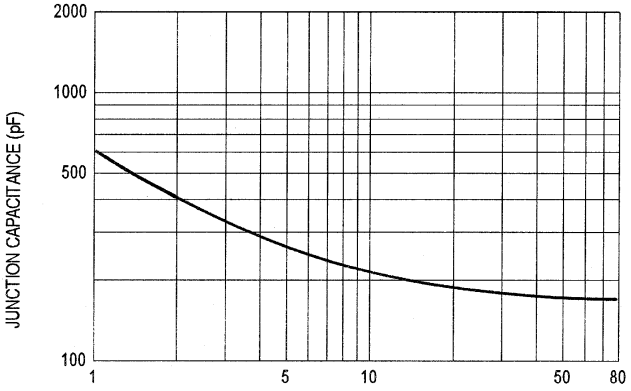
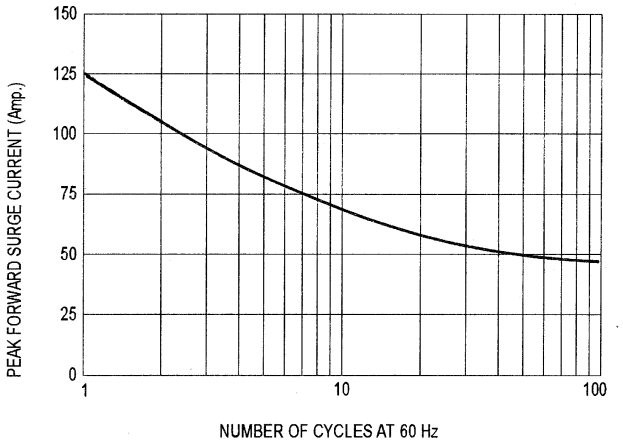



FIG-5 PEAK FORWARD SURGE CURRENT



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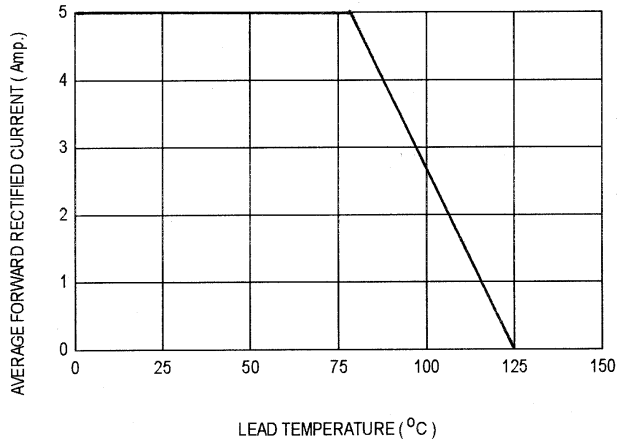


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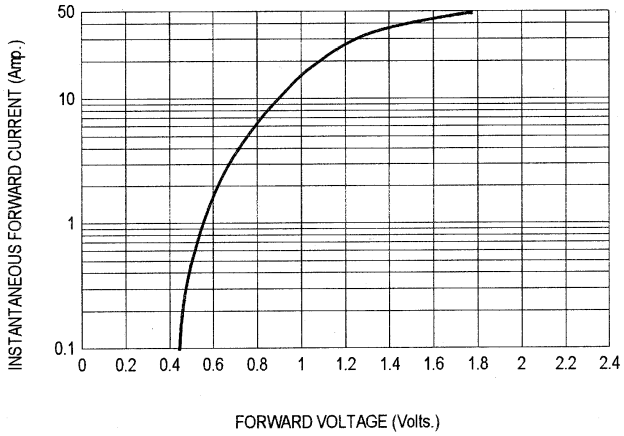


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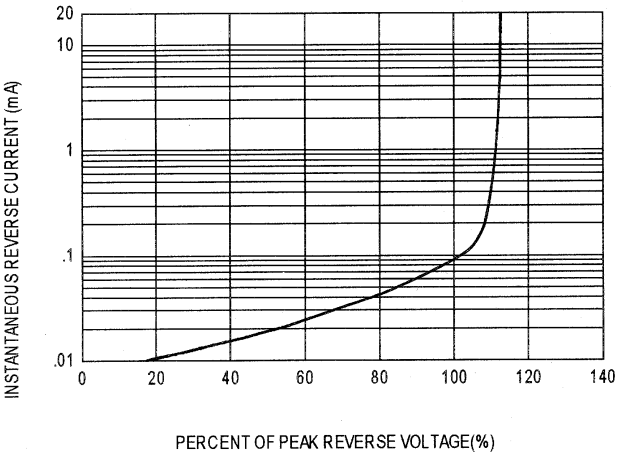


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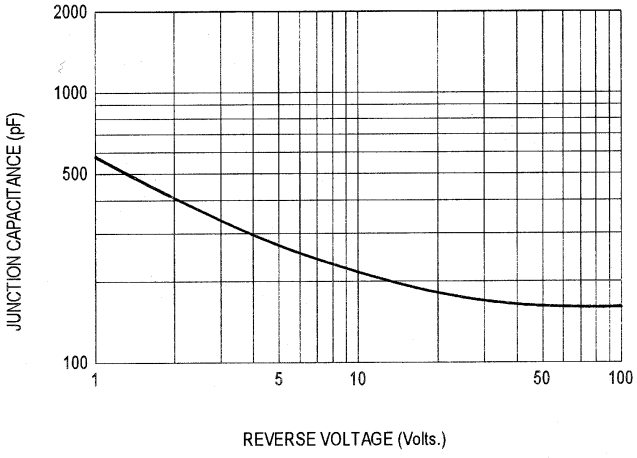


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