



Micro Commercial Components

Micro Commercial Components  
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# SR105 THRU SR1010

## Features

- Guard Ring Protection
- Low Power Loss For High Efficiency
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

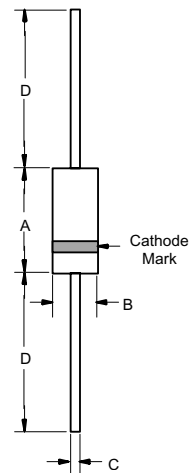
## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance; 30 °C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SR105              | SR105          | 50V                                    | 35V                 | 50V                         |
| SR106              | SR106          | 60V                                    | 42V                 | 60V                         |
| SR108              | SR108          | 80V                                    | 56V                 | 80V                         |
| SR1010             | SR1010         | 100V                                   | 70V                 | 100V                        |

## 1 Amp Schottky Barrier Rectifier 50 - 100 Volts

### DO-41



## Electrical Characteristics @ 25°C Unless Otherwise Specified

|  |             |               |   |
|--|-------------|---------------|---|
| Average Forward Current  | $I_{F(AV)}$ | 1.0A          | $T_A = 75^\circ\text{C}$                              |
| Peak Forward Surge Current   | $I_{FSM}$   | 30A           | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>SR105-SR106<br>SR108-SR1010 | $V_F$       | .70V<br>.85V  | $I_{FM} = 1.0A;$<br>$T_J = 25^\circ\text{C}^*$        |
| Maximum DC Reverse Current At Rated DC Blocking Voltage              | $I_R$       | 0.5mA<br>10mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$ |

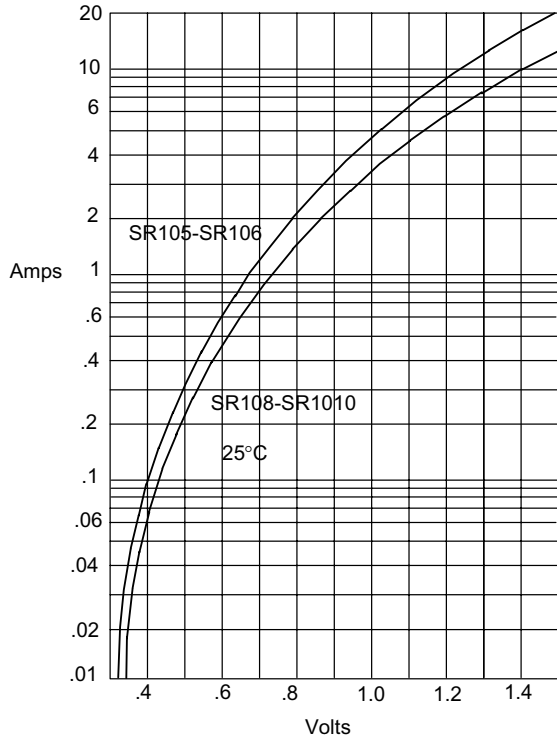
\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .166   | .205 | 4.10  | 5.20 |      |
| B   | .080   | .107 | 2.00  | 2.70 |      |
| C   | .028   | .034 | .70   | .90  |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

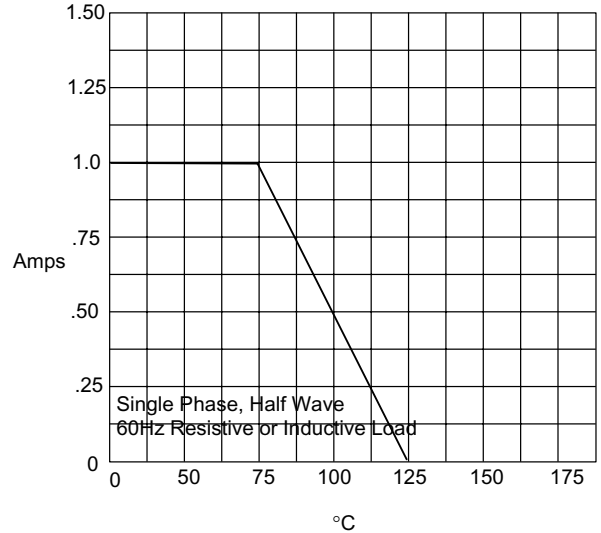
# SR105 thru SR1010

Figure 1  
Typical Forward Characteristics



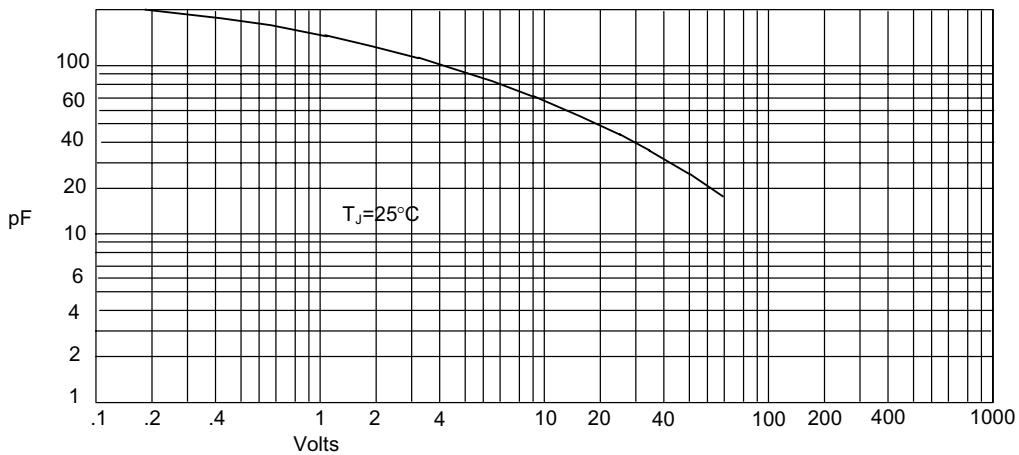
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



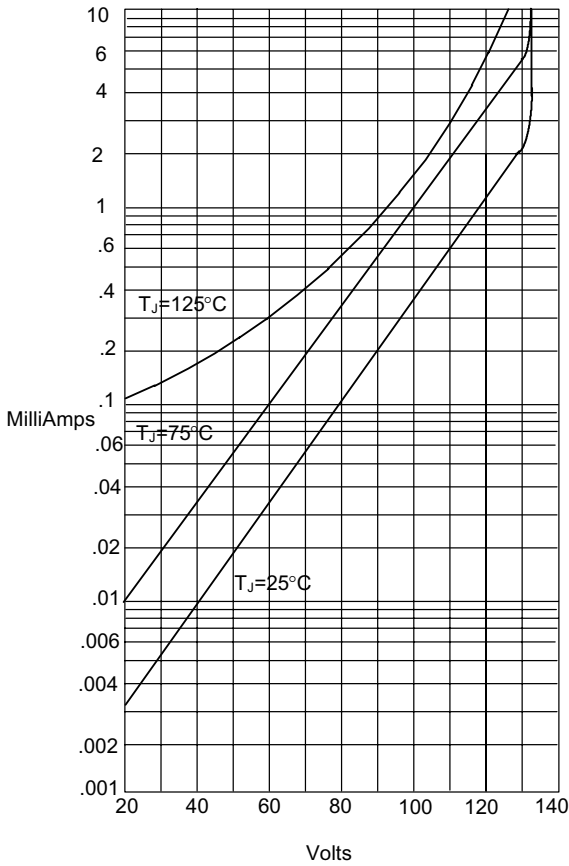
Junction Capacitance - pF versus  
Reverse Voltage - Volts

SR105 thru SR1010



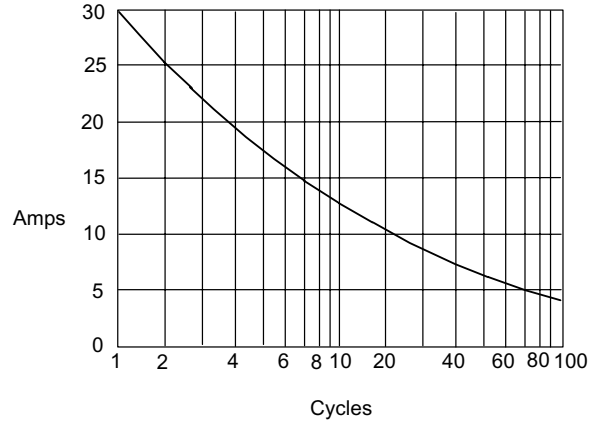
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Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles



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### Ordering Information :

| Device         | Packing                      |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |
| Part Number-BP | Bulk: 50Kpcs/Carton          |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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