



Micro Commercial Components



Micro Commercial Components  
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## SR305 THRU SR3010

### 3 Amp Schottky Barrier Rectifier 50 to 100 Volts

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Forward Voltage Drop and Low Switching Noise
- High Current Capability and High Surge Current Capability
- 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 +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Ambient

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SR305              | ---            | 50V                                    | 35V                 | 50V                         |
| SR306              | ---            | 60V                                    | 42V                 | 60V                         |
| SR308              | ---            | 80V                                    | 56V                 | 80V                         |
| SR3010             | ---            | 100V                                   | 70V                 | 100V                        |

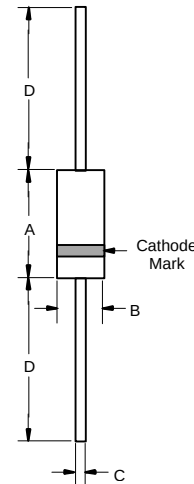
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                  |             |               |                                                        |
|------------------------------------------------------------------|-------------|---------------|--------------------------------------------------------|
| Average Forward Current                                          | $I_{F(AV)}$ | 3.0A          | $T_A = 85^\circ\text{C}$                               |
| Peak Forward Surge Current                                       | $I_{FSM}$   | 80A           | 8.3ms, half sine                                       |
| Maximum Instantaneous Forward Voltage<br>SR305-306<br>SR308-3010 | $V_F$       | .72V<br>.85V  | $I_{FM} = 3.0A$ ;<br>$T_J = 25^\circ\text{C}$ (Note 2) |
| Maximum DC Reverse Current At Rated DC Blocking Voltage          | $I_R$       | 1.0mA<br>30mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$  |
| Typical Junction Capacitance                                     | $C_J$       | 200pF         | Measured at 1.0MHz, $V_R=4.0V$                         |

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

2.Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

## DO-201AD



| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .287   | .374 | 7.30  | 9.50 |      |
| B   | .189   | .208 | 4.80  | 5.30 |      |
| C   | .048   | .052 | 1.20  | 1.30 |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

# SR305 thru SR3010

Figure 1  
Typical Forward Characteristics

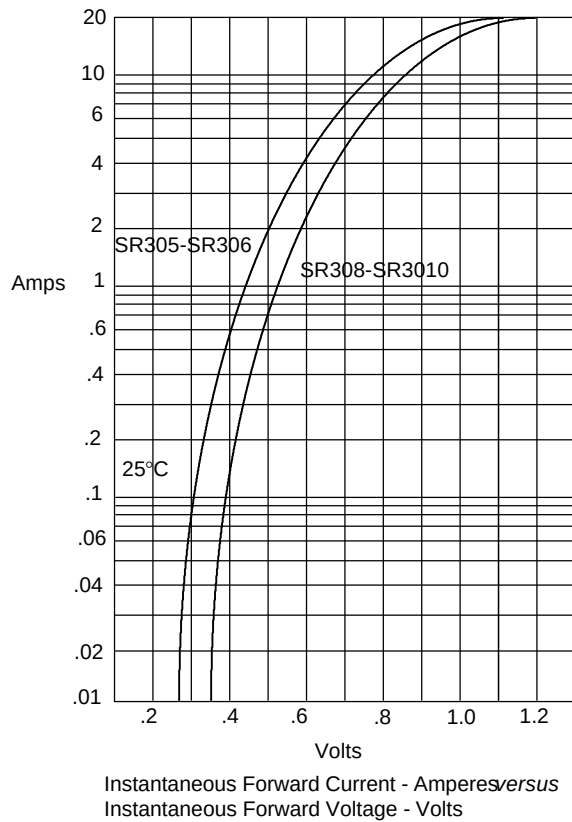
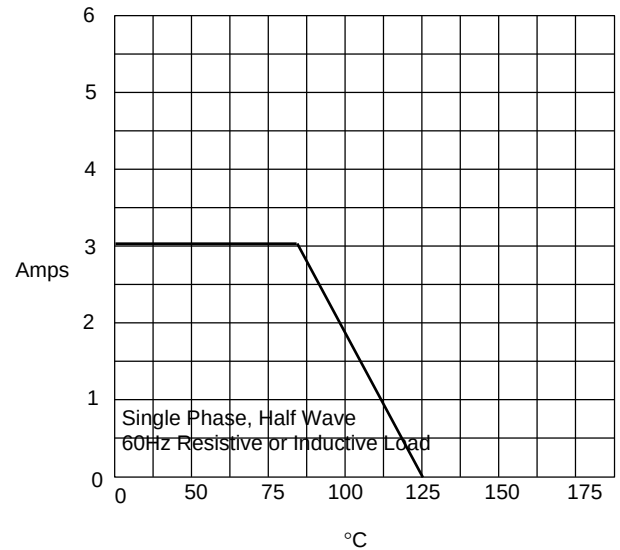
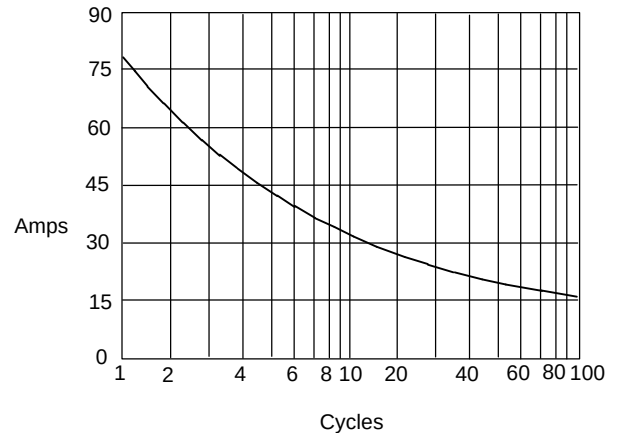


Figure 2  
Forward Derating Curve



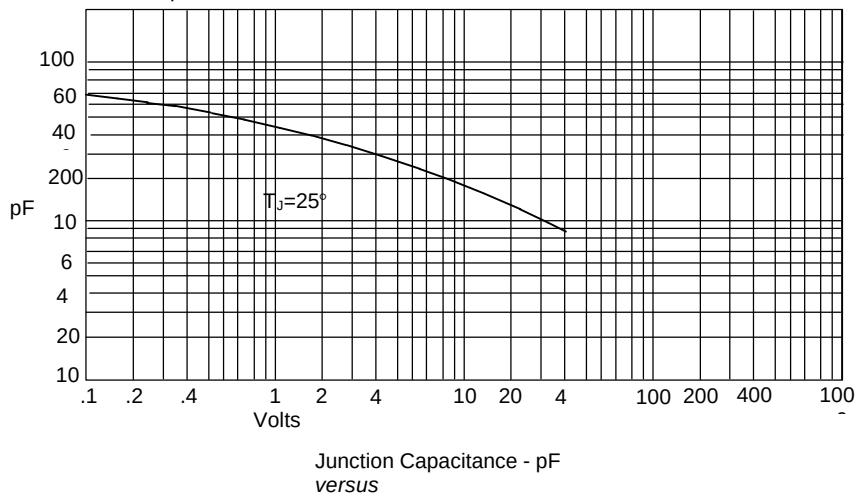
Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 3  
Maximum Non-Repetitive Forward Surge Current



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

Figure 4  
Junction Capacitance





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## Ordering Information :

| Device         | Packing                        |
|----------------|--------------------------------|
| Part Number-TP | Tape&Reel: 1.2Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 1.2Kpcs/Ammo Box |
| Part Number-BP | Bulk: 12Kpcs/Carton            |

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

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