



Micro Commercial Components



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SR302 THRU SR345

3 Amp Schottky Barrier Rectifier 20 - 45 Volts

Features

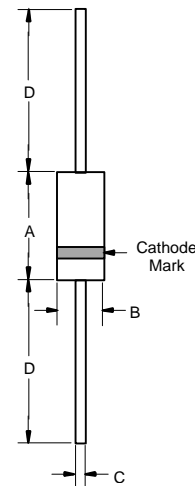
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Forward Voltage Drop and Low Switching Noise
- High Current Capability and High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -50°C to +125°C
- Storage Temperature: -50°C to +125°C
- Maximum Thermal Resistance; 40°C/W Junction To Ambient

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SR302 | --- | 20V | 14V | 20V |
| SR303 | --- | 30V | 21V | 30V |
| SR304 | --- | 40V | 28V | 40V |
| SR345 | --- | 45V | 31.5V | 45V |

DO-201AD



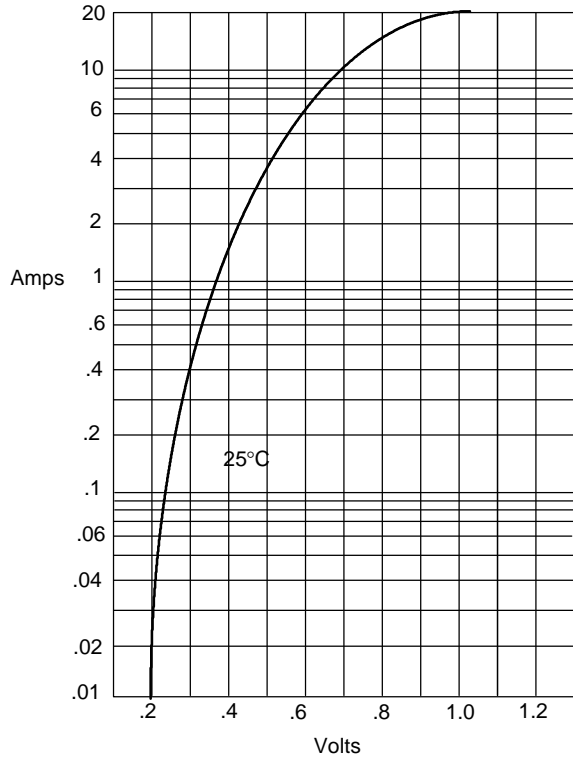
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------|---|
| 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 | V_F | .50V | $I_{FM} = 3.0\text{A};$ $T_J = 25^\circ\text{C}(\text{Note } 2)$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 30mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 180pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2.Pulse test: Pulse width 300 μsec , Duty cycle 1%

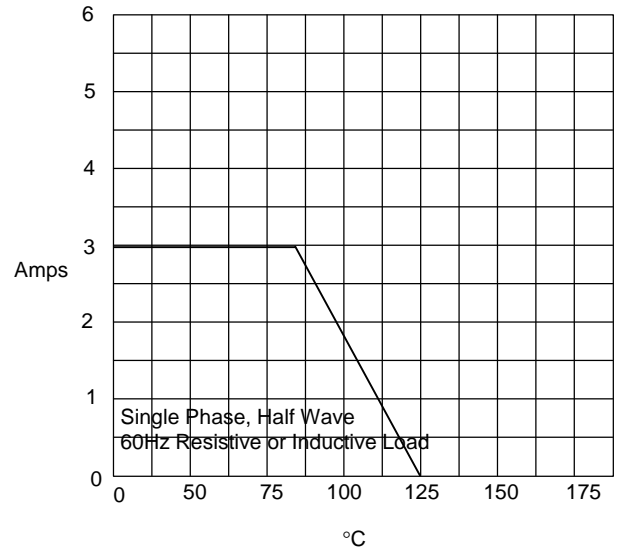
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| A | .287 | .374 | 7.30 | 9.50 | |
| B | .189 | .208 | 4.80 | 5.30 | |
| C | .048 | .052 | 1.20 | 1.30 | |
| D | 1.000 | --- | 25.40 | --- | |

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

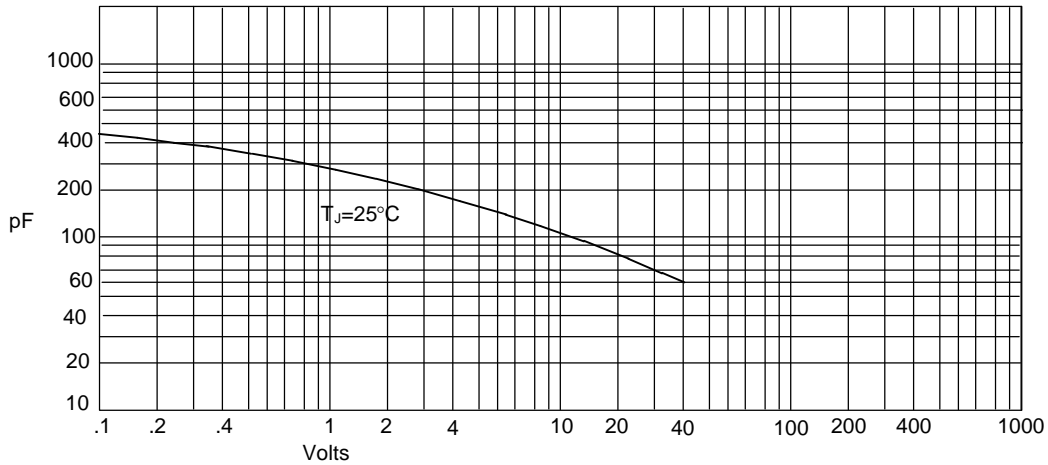
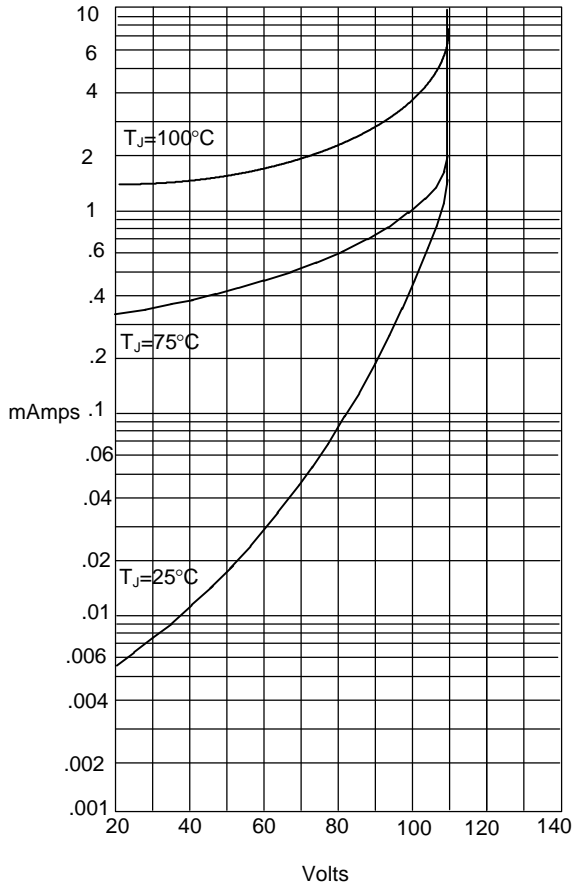
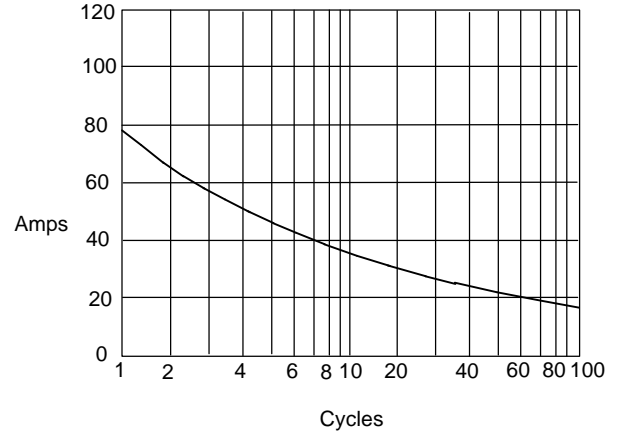


Figure 4
Typical Reverse Characteristics



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

Figure 5
Maximum Non-Repetitive Forward Surge Current



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

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



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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 |

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