

#### **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

# 3 Amp Schottky Barrier Rectifier 20 to 45 Volts

## **Maximum Ratings**

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

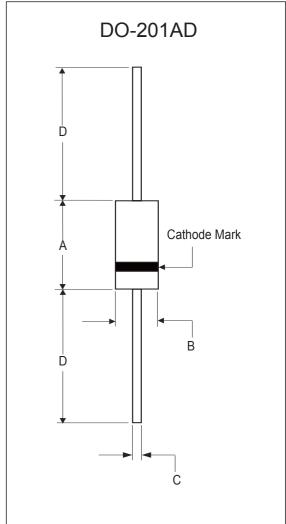
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS Voltage | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|------------------------|-----------------------------------|
| SR302              | SR302          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

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward<br>Current                                    | I <sub>F(AV)</sub> | 3.0A          | T <sub>A</sub> =85°C                                    |  |  |
|---|--------------------|---------------|---|--|--|
| Peak Forward Surge<br>Current                                 | I <sub>FSM</sub>   | 80A           | 8.3ms,Half Sine   |  |  |
| Maximum<br>Instantaneous<br>Forward Voltage                   | V <sub>F</sub>     | 0.5V          | I <sub>FM</sub> =3.0A;<br>T <sub>J</sub> =25°C (Note 2) |  |  |
| Maximum DC Reverse<br>Current at Rated DC<br>Blocking Voltage | I <sub>R</sub>     | 0.1mA<br>20mA | T <sub>J</sub> =25°C;<br>T <sub>J</sub> =100°C          |  |  |
| Typical Junction<br>Capacitance                               | С                  | 180pF         | Measured at<br>1.0MHz, V <sub>R</sub> =4.0V             |  |  |

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

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



| DIMENSIONS |        |       |       |      |      |  |
|------------|--------|-------|-------|------|------|--|
| DIM        | INCHES |       | MM    |      | NOTE |  |
| DIIVI      | MIN    | MAX   | MIN   | MAX  | NOTE |  |
| Α          | 0.287  | 0.374 | 7.30  | 9.50 |      |  |
| В          | 0.189  | 0.208 | 4.80  | 5.30 |      |  |
| С          | 0.048  | 0.052 | 1.20  | 1.30 |      |  |
| D          | 1.000  |       | 25.40 |      |      |  |



## **Curve Characteristics**

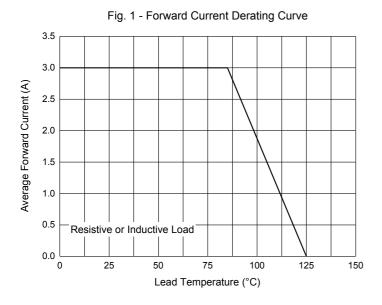
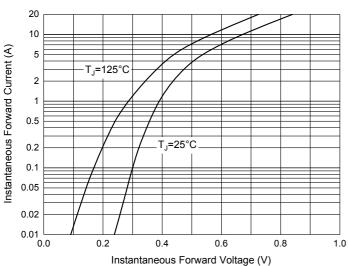


Fig. 3 - Typical Instantaneous Forward Characteristics



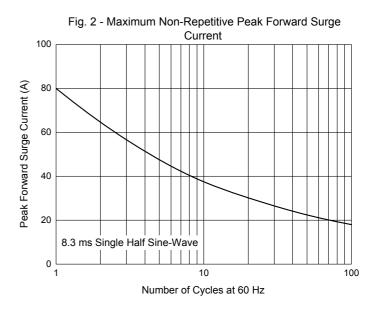
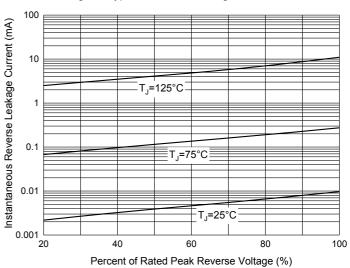


Fig. 4 - Typical Reverse Leakage Characteristics





## **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:500pcs/Box,12Kpcs/Carton  |  |

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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