



Micro Commercial Components



Micro Commercial Components  
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**SR1045**

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Guard Ring Protection
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 3°C/W Junction to Case

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| SR1045          | 45V                                    | 31.5V               | 45V                         |

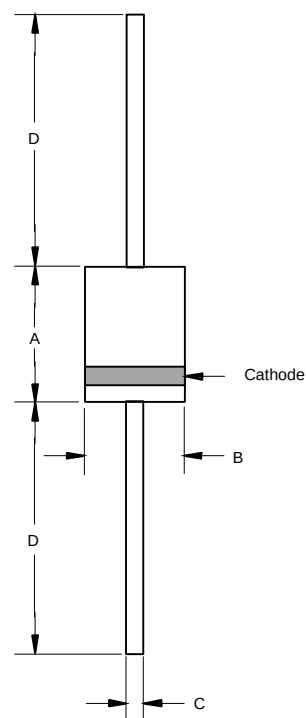
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                  |           |               |                                                       |
|----------------------------------|-----------|---------------|-------------------------------------------------------|
| Average Rectified Output current | $I_O$     | 10A           | $T_C = 95^\circ\text{C}$                              |
| Maximum surge current            | $I_{FSM}$ | 275A          | 8.3ms, half sine                                      |
| Max peak forward voltage         | $V_{FM}$  | .55V          | $I_{FM} = 10A$                                        |
| Max peak reverse current         | $I_{RM}$  | 0.5mA<br>50mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$ |
| Typical junction capacitance     | $C_J$     | 450pF         | $V_R = 4.0V$ ,<br>$f=1.0\text{MHz}$                   |

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

## 10 Amp Schottky Barrier Rectifier 45 Volts

**R-6**



| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .340   | .360 | 8.60  | 9.10 |      |
| B   | .340   | .360 | 8.60  | 9.10 |      |
| C   | .048   | .052 | 1.20  | 1.30 |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

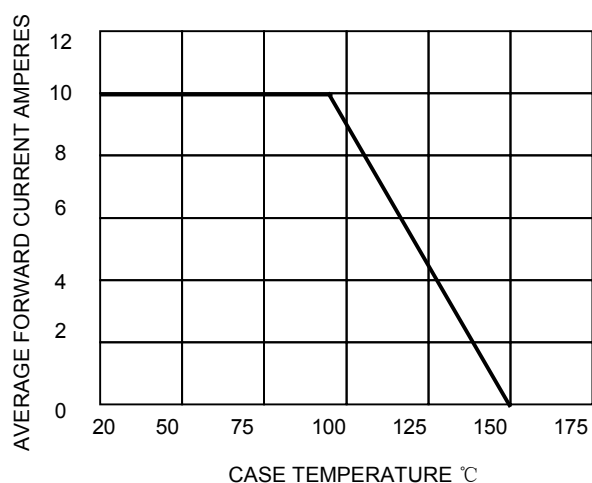


FIG.1-FORWARD CURRENT DERATING CURVE

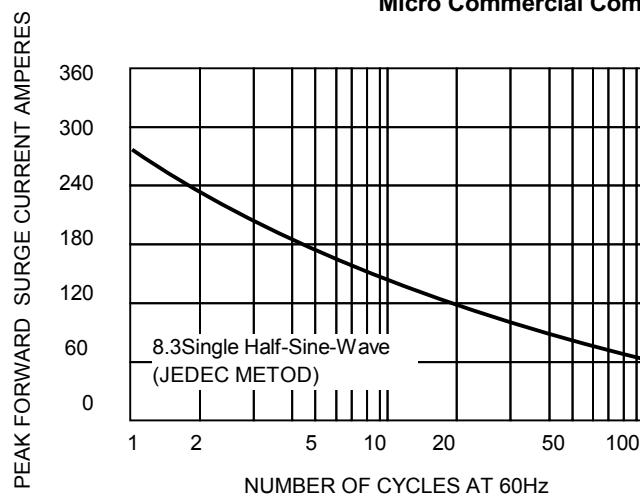


FIG.2-MAXIMUM NON-REPETITIVE SURGE

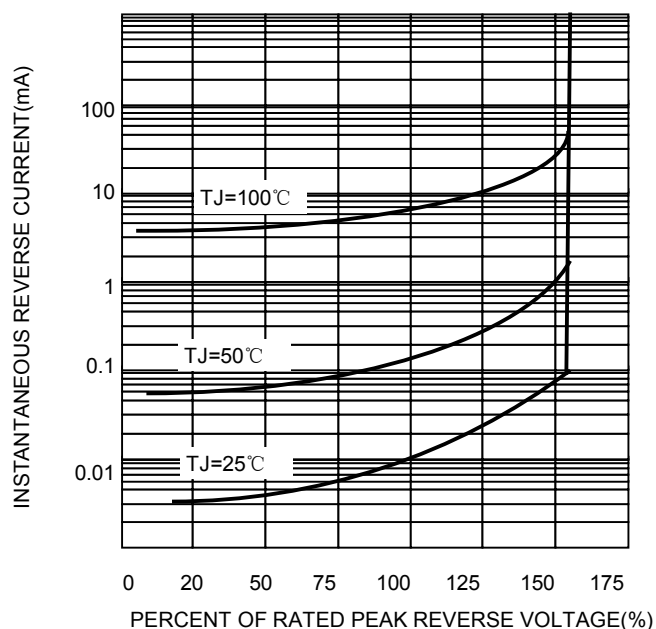


FIG.3-TYPICAL REVERSE CHARACTERISTICS

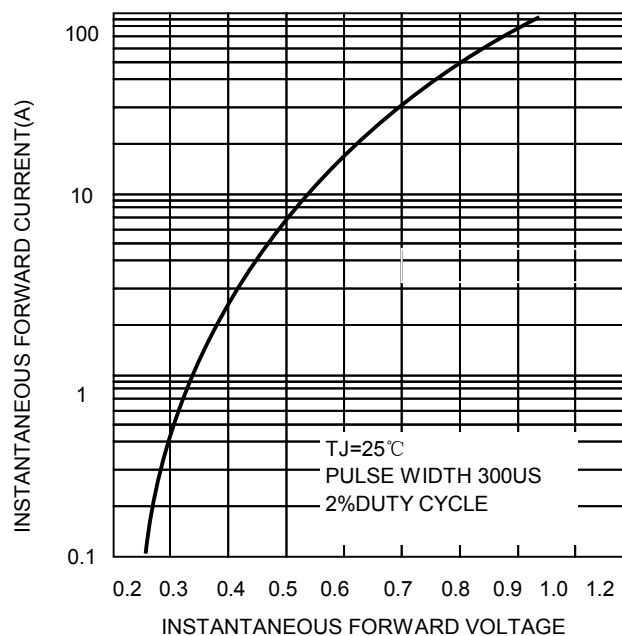


FIG.4-TYPICAL FORWARD CHARACTERISTICS

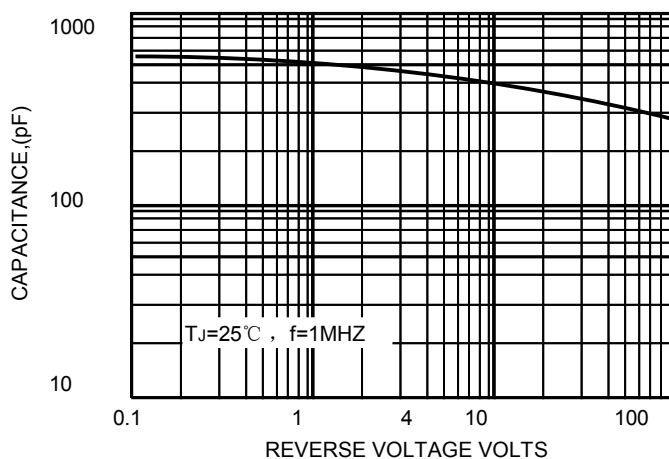


FIG.5-TYPICAL JUNCTION CAPACITANCE

## Ordering Information :

|                |                               |
|----------------|-------------------------------|
| Part Number-TP | Tape&Reel: 500pcs/Reel        |
| Part Number-AP | Ammo Packing: 450pcs/Ammo Box |
| Part Number-BP | Bulk: 4.8Kpcs/Carton          |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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