



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

## Designer's Data Sheet

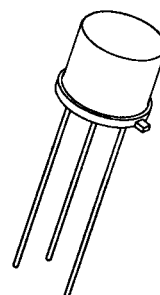
### FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage protection
- Hermetically Sealed Package
- Available in isolated and non-isolated versions
- Eutectic Die Attach
- 175°C Operating Temperature
- TX, TXV and Space Level Screening Available

**SSR1045/5**

**10 AMP  
45 VOLTS  
SCHOTTKY  
RECTIFIER**

TO-5



### MAXIMUM RATINGS

| RATING                                                                                                                                  | SYMBOL             | VALUE       | UNIT  |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|-------|
| Peak Repetitive Reverse<br>and DC Blocking Voltage                                                                                      | VRRM<br>VRWM<br>VR | 45          | Volts |
| Average Rectified Forward Current<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C)                                                         | IO                 | 10          | Amps  |
| Peak Surge Current<br>(8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow<br>junction to reach equilibrium between pulses, TA=25°C) | IFSM               | 150         | Amps  |
| Operating and storage temperature                                                                                                       | Top & Tstg         | -65 to +175 | °C    |
| Maximum Thermal Resistance<br>Junction to Case                                                                                          | RθJC               | 7           | °C/W  |

NOTE: All specifications are subject to change without notification.  
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET#: RS0129 A

MED

# SSR1045/5

PRELIMINARY

# SSDI

## SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

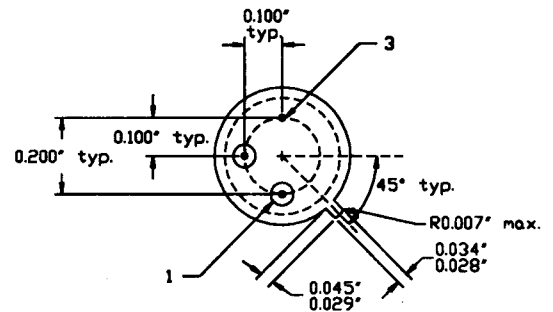
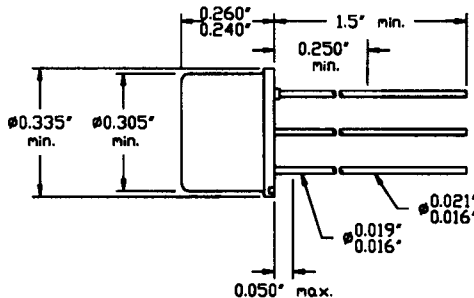
### ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS                                                                                                                                                                                                | SYMBOL     | MAXIMUM      | UNIT          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|---------------|
| <b>Instantaneous Forward Voltage Drop</b><br>( $I_F = 5 \text{ A dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)<br>( $I_F = 10 \text{ A dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse) | <b>VF1</b> | 0.55<br>0.69 | Vdc           |
| <b>Instantaneous Forward Voltage Drop</b><br>( $I_F = 5 \text{ A dc}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)                                                                                   | <b>VF2</b> | 0.61         | Vdc           |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)                                                                                                   | <b>IR1</b> | 100          | $\mu\text{A}$ |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)                                                                                                  | <b>IR2</b> | 10           | mA            |
| <b>Junction Capacitance</b><br>( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )                                                                                                     | <b>CJ</b>  | 400          | pf            |

### CASE OUTLINE: TO-5

#### PIN OUT:

**PIN 1: ANODE**  
**PIN 2: ANODE**  
**PIN 3: CATHODE**



### TYPICAL OPERATING CURVES

( $T_A = 25^\circ\text{C}$  Unless otherwise specified)

