

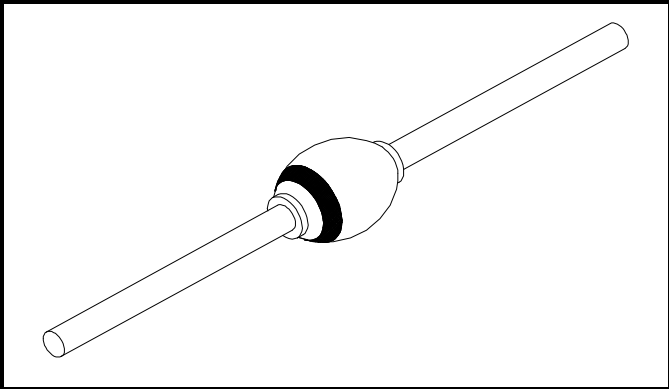


**Solid State Devices, Inc.**

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# SDRS614

**250 mA  
 2,200 VOLTS  
 FAST RECOVERY  
 HIGH VOLTAGE RECTIFIER**



## Designer's Data Sheet

**FEATURES:**

- **Fast Reverse Recovery: 300 nsec Maximum**
- **PIV 2,200 Volts**
- **Hermetically Sealed**
- **Void-Free Construction**
- **Metallurgically Bonded**
- **175°C Maximum Operating Temperature**
- **Miniature Package**
- **TX, TXV, and Space Level Screening Available**
- **Lead Free Termination Available, Contact Factory**

## ELECTRICAL CHARACTERISTICS <sup>1/ 2/ 3/ 4/</sup>

| Part Number | Peak Inverse Voltage | Average Rectified Current | Reverse <sup>5/</sup> Recovery Time | Maximum Junction Capacitance    | Maximum Surge Current (1 Cycle) | Typical Thermal Impedance | Maximum Forward Voltage |       | Maximum Reverse Current     |       |
|-------------|----------------------|---------------------------|-------------------------------------|---------------------------------|---------------------------------|---------------------------|-------------------------|-------|-----------------------------|-------|
| Symbol      | PIV                  | I <sub>O</sub>            | t <sub>rr</sub>                     | C <sub>J</sub>                  | I <sub>FSM</sub>                | θ <sub>JL</sub>           | V <sub>F</sub>          |       | I <sub>R</sub> @ 80% of PIV |       |
| Units       | Volts                | mA                        | nsec                                | pF                              | Amps                            | °C/W                      | Volts                   |       | µA                          |       |
| Conditions  |                      |                           | Max                                 | V <sub>R</sub> = 100V, f = 1MHz |                                 | L = 1/4"                  | 60mA                    | 250mA | 25°C                        | 100°C |
|             | 2,200                | 250                       | 300                                 | 5.0                             | 20                              | 45                        | 1.7                     | 2.2   | 5.0                         | 150   |

**NOTES:**

- 1/ Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 2/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in suitable dielectric material.
- 3/ Maximum lead temperature for soldering is 250°C, 3/8" from case for 5 sec. maximum.
- 4/ Operating and storage temperature: -65°C to +175°C.
- 5/ Recovery Conditions I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A rec. to 0.25 A.

| PACKAGE OUTLINE: AXIAL RECTIFIER | DIMENSIONS |       |       |
|----------------------------------|------------|-------|-------|
|                                  | CODE       | MIN   | MAX   |
|                                  | A          | ---   | .135" |
|                                  | B          | ---   | .170" |
|                                  | C          | .028" | .032" |
|                                  | D          | 1.0"  | ---   |