

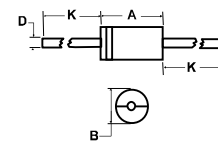
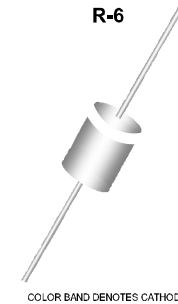
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|-----------------|--|---|
| SPSL1245 | Axial Lead Schottky Rectifiers R-6 Package | Schottky Barrier Rectifier 12.0 Amperes 45 Volts |
|-----------------|--|---|

Features

- Metal silicon junction, majority carrier conduction
- Highly stable oxide passivated junction
- Guardring for stress protection
- Low forward voltage drop.
- High current capability
- High surge capability
- High reliability
- Ideal for solar panel PV application such as By-Pass diode

Mechanical Data

- Cases: R-6 Axial-Leaded, Molded Plastic
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Terminals : All Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Weight : 2.00 grams



| DIM | INCHES | | MILLIMETERS | |
|-----|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.291 | 0.299 | 7.40 | 7.60 |
| B | 0.311 | 0.319 | 7.90 | 8.10 |
| D | 0.047 | 0.051 | 1.20 | 1.30 |
| K | 1.000 | --- | 25.40 | --- |

Maximum Ratings and Electrical Characteristics

(Ta = 25°C unless otherwise noted)

| Parameter | Symbols | SPSL1245 | Units |
|--|-----------------|-------------|-------|
| Maximum Repetitive Reverse Voltage | V_{RRM} | 45 | Volts |
| Maximum RMS Voltage | V_{RMS} | 31.5 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 45 | Volts |
| Maximum average forward rectified current (see Fig. 1) | $I_{(AV)}$ | 12.0 | Amps |
| Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | I_{FSM} | 300.0 | Amps |
| Maximum Instantaneous Forward Voltage @ 12A (Note 1) | V_F | 0.55 | Volts |
| Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage (Note1) | Ta = 25°C | 0.5 | mA |
| | Ta = 100°C | 20.0 | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 14 | °C/W |
| Storage Temperature Range | T_{stg} | -65 to +150 | °C |
| Operating Junction Temperature | T_J | -50 to +200 | °C |
| In DC Forward Mode | T_J | 200 max | °C |

Notes: 1. Pulse test with PW=300 usec, 1% duty cycle.

2. Leads are kept at ambient temperature at a distance of 10 mm from case.

Typical Characteristics

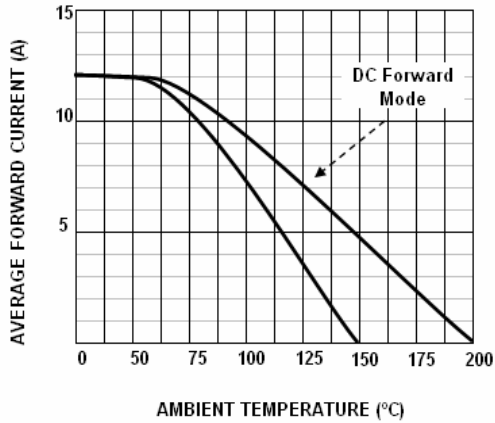


Figure 1. Forward Current Derating Curve

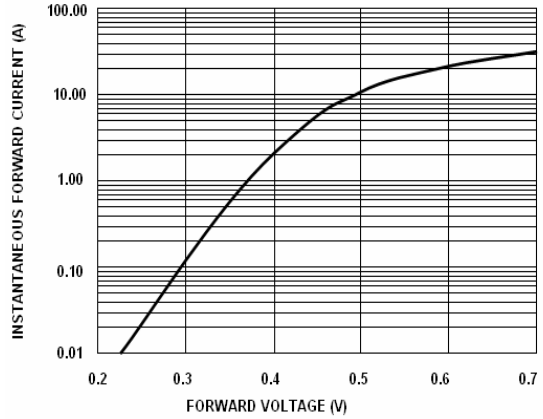


Figure 2. Forward Voltage Characteristics

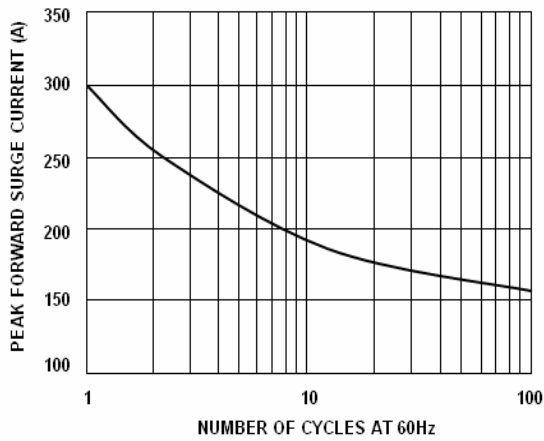


Figure 3. Non-Repetitive Surge Current

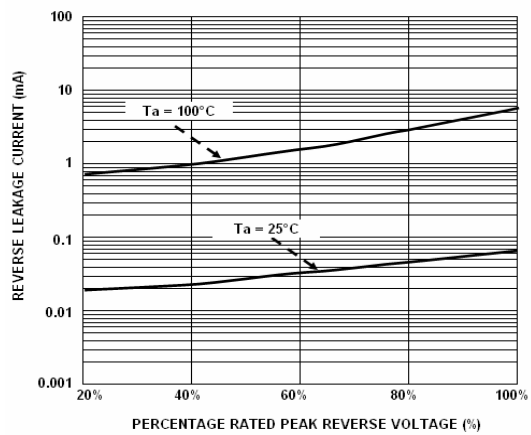


Figure 4. Reverse Current Characteristics