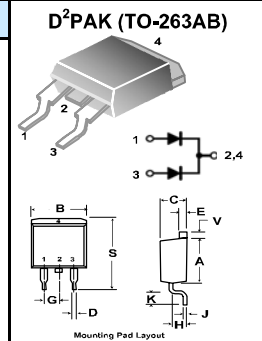


| | | |
|-----------------|---|---|
| SPSD2030 | Schottky Power Rectifier D ² PAK Power Package | Schottky Barrier Rectifier 20.0 Amperes 30 Volts |
|-----------------|---|---|

| |
|--|
| Features <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Cases: D²PAK, Epoxy, Molded • 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 : 1.7 grams |
|---|

| DIM | INCHES | | MILLIMETERS | |
|-----|--------|-------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.320 | 0.380 | 8.14 | 9.65 |
| B | 0.330 | 0.405 | 8.38 | 10.29 |
| C | 0.180 | 0.190 | 4.57 | 4.83 |
| D | 0.020 | 0.035 | 0.51 | 0.89 |
| E | 0.045 | 0.055 | 1.14 | 1.40 |
| G | 0.095 | 0.105 | 2.41 | 2.67 |
| H | 0.080 | 0.110 | 2.03 | 2.79 |
| J | 0.015 | 0.025 | 0.38 | 0.64 |
| K | 0.090 | 0.110 | 2.29 | 2.79 |
| S | 0.475 | 0.525 | 11.93 | 13.33 |
| V | 0.045 | 0.050 | 1.14 | 1.27 |

Maximum Ratings and Electrical Characteristics
(Per Diode Leg, Ta = 25°C unless otherwise noted)

| Parameter | Symbols | SPSD2030 | Units |
|--|-------------------|-------------|-------|
| Maximum Repetitive Reverse Voltage | V _{RRM} | 30 | Volts |
| Maximum RMS Voltage | V _{RMS} | 21 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 30 | Volts |
| Maximum average forward rectified current (see Fig. 1) | I _(AV) | 10.0 | Amps |
| Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | I _{FSM} | 200.0 | Amps |
| Maximum Instantaneous Forward Voltage @ 10A (Note 1) | V _F | 0.5 | Volts |
| Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage (Note1) | Ta = 25°C | 0.5 | mA |
| | Ta = 100°C | 50.0 | |
| Typical Thermal Resistance (Note 2) | R _{θJC} | 1.5 | °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. Thermal resistance junction to case.

Typical Characteristics

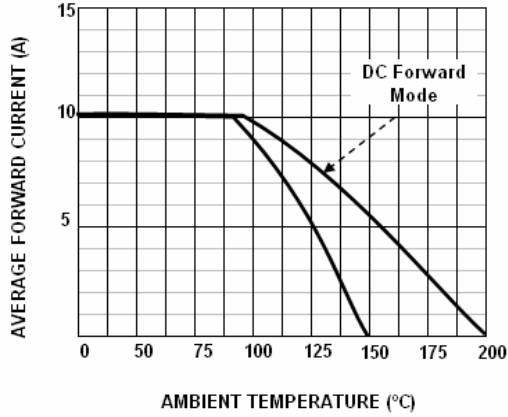


Figure 1. Forward Current Derating Curve

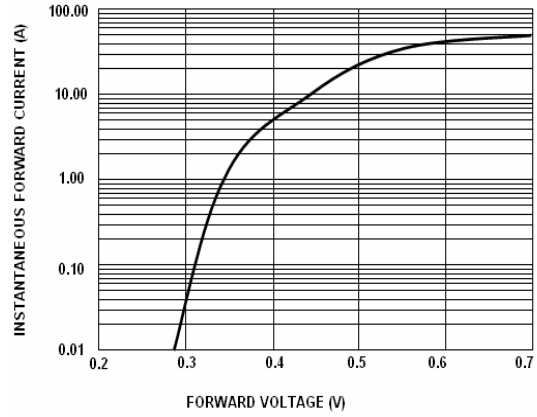


Figure 2. Forward Voltage Characteristics

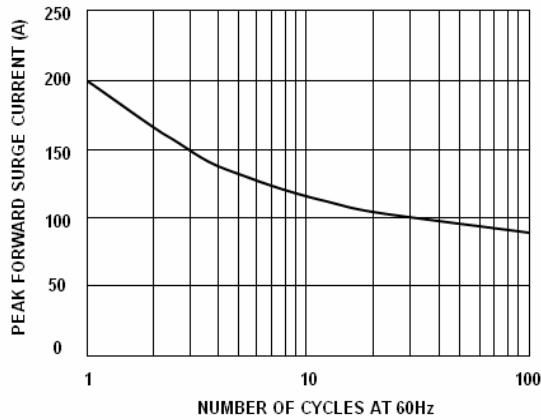


Figure 3. Non-Repetitive Surge Current

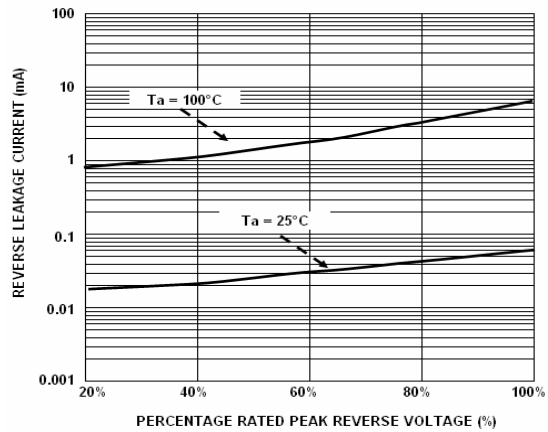


Figure 4. Reverse Current Characteristics