



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

**SPD5817SM
Thru
SPD5819SM**

**1 AMP
20 – 40 VOLTS
SCHOTTKY RECTIFIER**

- FEATURES:**
- Extremely Low Forward Voltage Drop
 - Hermetically Sealed Surface Mount Package
 - For High Efficiency Applications
 - High Surge Capability
 - Axial Lead Versions Available
 - TX, TXV, or Space Level Screening Available

Designer's Data Sheet

Part Number/Ordering Information^{1/}

SPD _ _ _

└─ Screening ^{2/}

 _ = Not Screened

 TX = TX Level

 TXV = TXV

 S = S Level

└─ Package Type

 SM = Surface Mount Round Tab

└─ Voltage/Family

 5817 = 20V

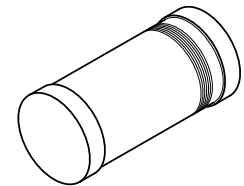
 5818 = 30V

 5819 = 40V

MAXIMUM RATINGS ^{3/}

| RATING | SYMBOL | VALUE | UNIT |
|--|---------------------|-------------|-------|
| Peak Repetitive Reverse Voltage and DC Blocking Voltage | | | |
| SPD5817SM | V_{RRM} | 20 | Volts |
| SPD5818SM | V_{RWM} | 30 | |
| SPD5819SM | V_R | 40 | |
| Average Rectified Output Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) | I_O | 1 | Amps |
| Peak Surge Current ^{3/} (8.3 ms Pulse, Half Sine Wave, superimposed on I_O , allow junction to reach equilibrium between pulses, TA=25°C) | I_{FSM} | 50 | Amps |
| Operating and Storage Temperature | $T_{OP} \& T_{STG}$ | -55 to +125 | °C |
| Maximum Thermal Resistance Junction to End Tab | $R_{\theta JE}$ | 20 | °C/W |

- NOTES: **1/** For ordering information, Price, and Availability- Contact Factory.
2/ Screened to MIL-PRF-19500.
3/ Unless otherwise specified, all electrical ratings/characteristics @ 25°C.



SURFACE MOUNT ROUND TAB



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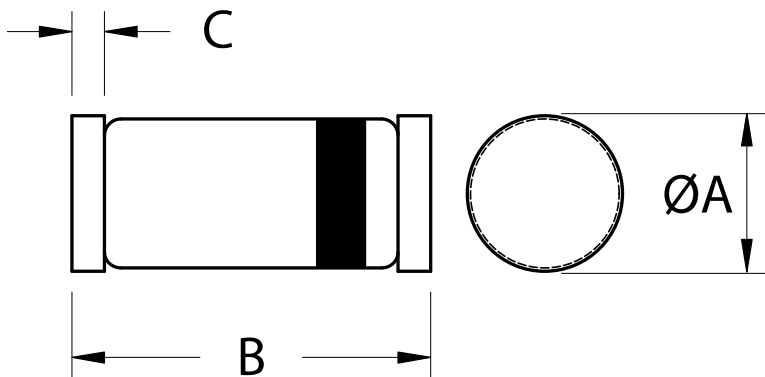
**SPD5817SM
 Thru
 SPD5819SM**

ELECTRICAL CHARACTERISTICS ^{3/}

| CHARACTERISTICS | | SYMBOL | MAXIMUM | UNIT |
|---|-----------|----------|---------|------|
| Instantaneous Forward Voltage Drop ($I_F = 1 \text{ Adc}$, $T_A = 25^\circ\text{C}$, 300-500 μs Pulse) | SPD5817SM | V_{F1} | 0.55 | Vdc |
| | SPD5818SM | | 0.65 | |
| | SPD5819SM | | 0.70 | |
| Instantaneous Forward Voltage Drop ($I_F = 1 \text{ Adc}$, $T_A = -55^\circ\text{C}$, 300-500 μs Pulse) | SPD5817SM | V_{F2} | 0.57 | Vdc |
| | SPD5818SM | | 0.67 | |
| | SPD5819SM | | 0.72 | |
| Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs Pulse Minimum) | | I_{R1} | 0.50 | mA |
| Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs Pulse Minimum) | | I_{R2} | 10 | mA |
| Junction Capacitance ($V_R = 5 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$) | | C_J | 120 | pF |

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Case Outline- Surface Mount Round Tab*



DIMENSIONS

| Dimension | Minimum | Maximum |
|-------------|---------|---------|
| ØA | .090" | .105" |
| B | .189" | .205" |
| C | .016" | .022" |

Note: Dimensions are prior to solder dipping

* For information on curves, contact the Factory Representative for Engineering Assistance.

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

DATA SHEET #: RS0111J

DOC