



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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Designer's Data Sheet

Part Number / Ordering Information ^{2/}

SPD 5817 _ _ _ _

L Screening ^{3/}

_ = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Package

SMS = Square Tab Surface Mount
_ = Axial Lead

Extra Inspection ^{1/}

V = MIL-STD-750, METHOD 2076
_ = None

Voltage / Family 5817 = 20V
 5818 = 30V
 5819 = 40V

**SPD5817 - SPD5819
SPD5817SMS - SPD5819SMS
SPD5817VSMS - SPD5819VSMS**

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

FEATURES:

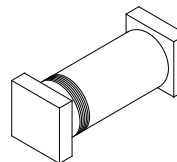
- Extremely Low Forward Voltage Drop
- High Surge Capability
- Hermetically Sealed
- Low Profile Surface Mount Package Available
- TX, TXV, and Space Level Screening Available^{3/}
- Extra Inspection per MIL-STD-750, Method 2076 Available

| MAXIMUM RATINGS | | Symbol | Value | Unit |
|--|------------------------------|----------------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage and DC Blocking Voltage | SPD5817, SMS ^{1/} | V_{RRM} | 20 | V |
| | SPD5818, SMS ^{1/} | V_{RWM} | 30 | |
| | SPD5819, SMS ^{1/} | V_R | 40 | |
| Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A = 25^\circ\text{C}$) | | I_O | 1 | A |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_O , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$) | | I_{FSM} | 25 | A |
| Operating and Storage Temperature | | T_{OP} & T_{stg} | -55 to +125 | $^\circ\text{C}$ |
| Maximum Thermal Resistance | Junction to Lead, $L = 3/8"$ | $R_{\theta JL}$ | 80 | $^\circ\text{C/W}$ |
| | Junction to End Tab | $R_{\theta JE}$ | 40 | |

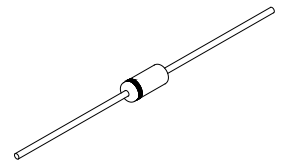
NOTES:

- 1/ Part number may have letter 'V' preceding 'SMS'.
- 2/ For ordering information, price, and availability, contact factory.
- 3/ Screening based on MIL-PRF-19500. Screening flows available on request.

Surface Mount Square Tab (SMS)



Axial Lead Diode



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

DATA SHEET #: RS0293M

DOCX

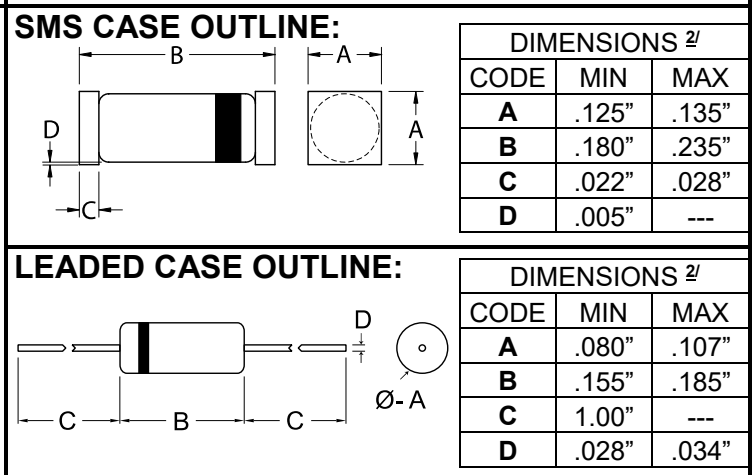
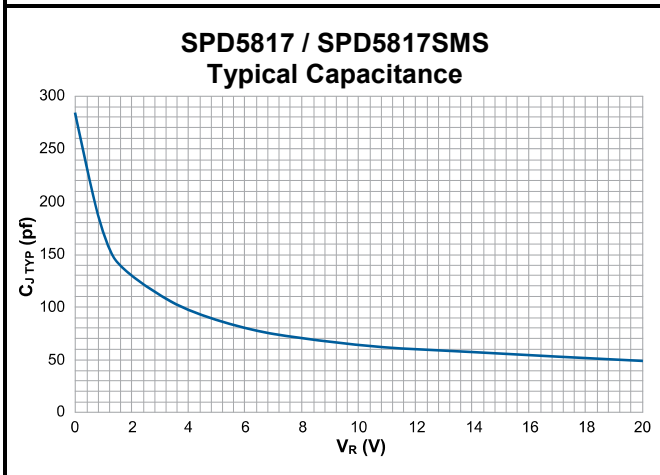
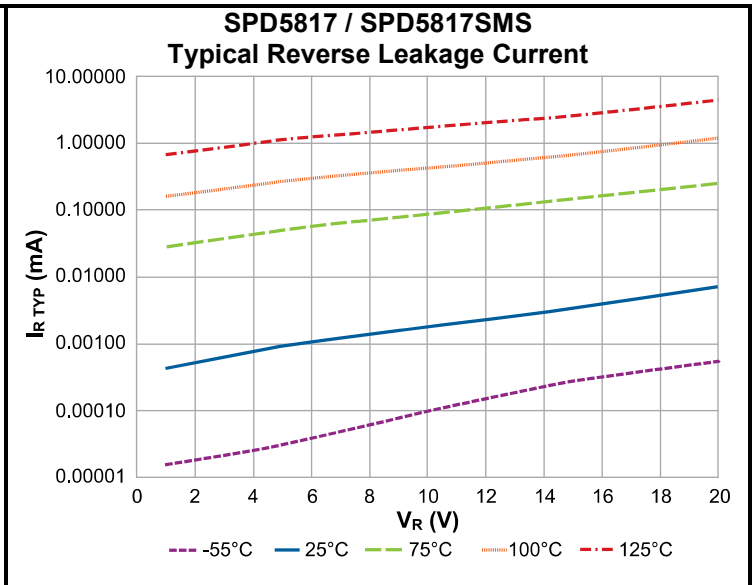
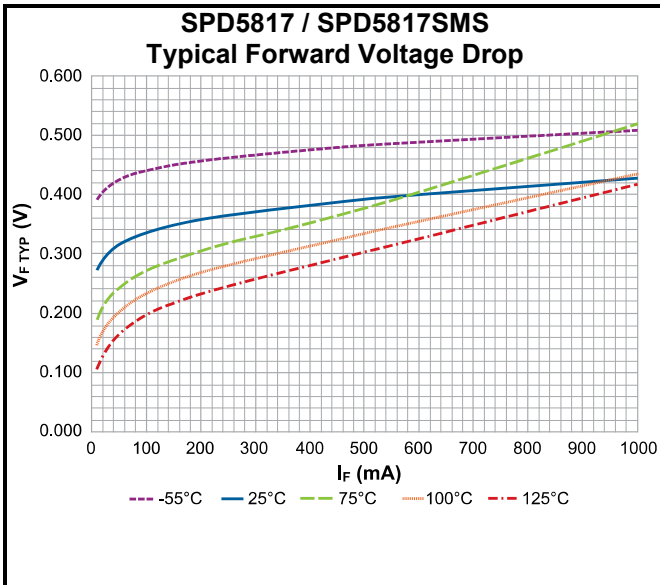


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SPD5817 - SPD5819
SPD5817SMS - SPD5819SMS
SPD5817VSMS - SPD5819VSMS

| ELECTRICAL CHARACTERISTICS ^{1/} | | Symbol | Max | Unit |
|---|--------------|----------|------|---------|
| Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = 25^\circ C$, 300-500 μs Pulse) | SPD5817, SMS | V_{F1} | 0.55 | V |
| | SPD5818, SMS | V_{F2} | 0.65 | |
| | SPD5819, SMS | V_{F3} | 0.70 | |
| Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = -55^\circ C$, 300-500 μs Pulse) | SPD5817, SMS | V_{F4} | 0.57 | V |
| | SPD5818, SMS | V_{F5} | 0.67 | |
| | SPD5819, SMS | V_{F6} | 0.72 | |
| Reverse Leakage Current (Rated V_R , $T_A = 25^\circ C$, 300 μs minimum Pulse) | | I_{R1} | 100 | μA |
| Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μs minimum Pulse) | | I_{R2} | 10 | mA |
| Junction Capacitance ($V_R = 5 V_{DC}$, $T_A = 25^\circ C$, $f = 1 MHz$) | | C_J | 110 | pF |



NOTES: ^{1/} Part number may have letter 'V' preceding 'SMS'.
^{2/} Dimensions are prior to solder dipping