



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 ^{2/}

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

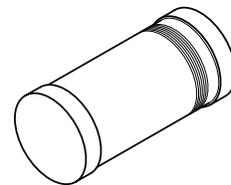
- 5817 = 20 V
- 5818 = 30 V
- 5819 = 40 V

MAXIMUM RATINGS ^{3/}

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD5817SM	V _{RRM}	20	V
	SPD5818SM	V _{RWM}	30	
	SPD5819SM	V _R	40	
Average Rectified Output Current (Resistive Load, 60 Hz, Sine Wave, T _A = 25°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°C)		I _{FSM}	25	A
Operating and Storage Temperature		T _{OP} & T _{STG}	-55 to +125	°C
Maximum Thermal Resistance Junction to End Tab		R _{θJE}	100	°C/W

NOTES:

- 1/ For ordering information, Price, and Availability- Contact Factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request
- 3/ Unless otherwise specified, all electrical ratings/characteristics @ 25°C.



SURFACE MOUNT ROUND TAB



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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

Case Outline- Surface Mount Round Tab*

DIMENSIONS

Dimension	Minimum	Maximum
ØA	.090"	.105"
B	.189"	.205"
C	.016"	.024"

Note: Dimensions are prior to solder dipping

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