



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**

Designer's Data Sheet

Part Number/Ordering Information^{1/}

SPD _ _ _

- L 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

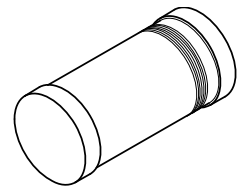
- FEATURES:**
- Extremely Low Forward Voltage Drop
 - Hermetically Sealed Surface Mount Package
 - For High Efficiency Applications
 - High Surge Capability
 - Axial Lead Versions Available
TX, TXV, or Space Level Screening Available^{2/}

MAXIMUM RATINGS ^{3/}

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage SPD5817SM SPD5818SM SPD5819SM	V_{RRM} V_{RWM} V_R	20 30 40	Volts
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}	25	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-55 to +125	C
Maximum Thermal Resistance Junction to End Tab	$R_{\theta JE}$	40	°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"	.022"	
Note: Dimensions are prior to solder dipping			

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