



PRELIMINARY

**SOLID STATE DEVICES, INC.**

14005 Stage Road \* Santa Fe Springs, Ca 90670  
Phone: (562) 404-4474 \* Fax: (562) 404-1773

**SPD5817SMM  
thru  
SPD5819SMM**

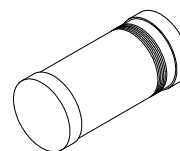
**1 AMP  
20 - 40 VOLTS  
SCHOTTKY  
RECTIFIER**

**Designer's Data Sheet**

**FEATURES:**

- Extremely Low Forward Voltage Drop
- PIV of 20 - 40 Volts
- For High Efficiency Applications
- Hermetically Sealed Surface Mount Package
- High Surge Capability
- Axial Lead Versions Available
- TX, TXV and Space Level Screening Available

**SURFACE MOUNT  
ROUND TAB**



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SPD5817SMM	$V_{RRM}$	20	Volts
	SPD5818SMM	$V_{RWM}$	30	
	SPD5819SMM	$V_R$	40	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_C = 25\text{ }^\circ\text{C}$ )		$I_o$	1	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on $I_o$ , allow junction to reach equilibrium between pulses, $T_C = 55\text{ }^\circ\text{C}$ )		$I_{FSM}$	60	Amps
Operating Temperature		$T_{OP}$	-55 TO +125	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 TO +125	$^\circ\text{C}$
Maximum Thermal Resistance Junction to End Tab		$R_{\theta JE}$	20	$^\circ\text{C/W}$

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

**DATA SHEET #: SH0021A**

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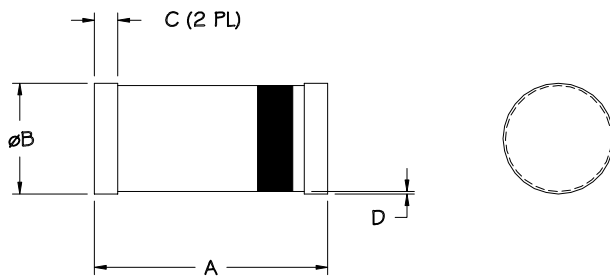


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Electrical Characteristics		SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop ( $I_F = 1A_{DC}$ , $T_A = 25^\circ C$ , 300 - 500 $\mu s$ Pulse)	SPD5817SMM	$V_{F1}$	0.55	$V_{DC}$
	SPD5818SMM		0.65	
	SPD5819SMM		0.70	
Instantaneous Forward Voltage Drop ( $I_F = 1A_{DC}$ , $T_A = 25^\circ C$ , 300 - 500 $\mu s$ Pulse)	SPD5817SMM	$V_{F1}$	0.57	$V_{DC}$
	SPD5818SMM		0.67	
	SPD5819SMM		0.72	
Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ C$ , 300 $\mu s$ min Pulse)		$I_{R1}$	0.10	mA
Reverse Leakage Current (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu s$ min Pulse)		$I_{R2}$	10.0	mA
Junction Capacitance ( $V_R = 10 V_{DC}$ , $T_A = 25^\circ C$ , $f = 1 MHz$ )	SPD5817SMM	$C_J$	95	pF
	SPD5818SMM		50	
	SPD5819SMM		50	

**CASE OUTLINE:**



**DIMENSIONS**

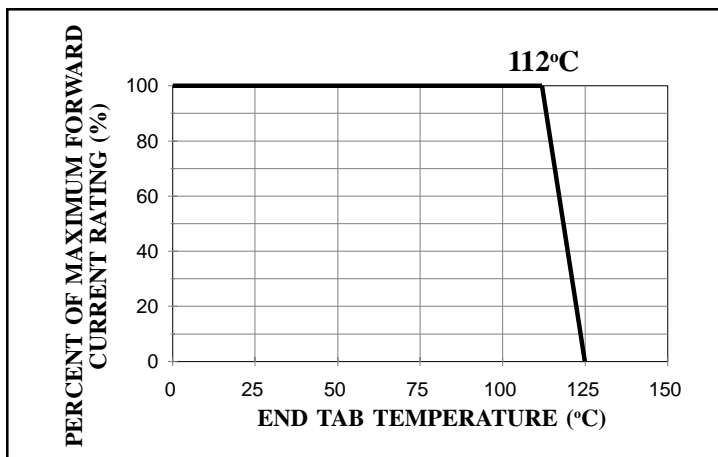
DIM	MIN.	MAX.
A	.130"	.140"
B	.075"	.085"
C	.016"	.022"
D	.001"	-

**NOTE:**

Dimensions are prior to solder dipping

**TYPICAL OPERATING CURVES**

( $T_A = 25^\circ C$  unless otherwise specified)



**FORWARD VOLTAGE**

