



**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

**SPD0801 – SPD1001SMS  
 and  
 SPD0801SMS - SPD1001SMS**

**1 AMP  
 80-100 VOLTS  
 SCHOTTKY RECTIFIER**

**Designer's Data Sheet**

**Part Number / Ordering Information<sup>1/</sup>**

**SPD**    \_\_\_    \_\_\_    \_\_\_

**L Screening<sup>2/</sup>**  
 TX = TX Level  
 TXV = TXV Level,  
 S = S-Level  
 \_\_\_ = Not Screened

**Package**  
 \_\_\_ = Axial Leaded  
 SMS = Surface Mount Square Tab

**Voltage / Family**    0801 = 80V  
                                   0901 = 90V  
                                   1001 = 100V

- FEATURES:**
- Extremely Low Forward Voltage Drop
  - High Surge Capability
  - PIV to 100 Volts
  - Low Reverse Leakage Current
  - High Voltage Replacement for 1N5817-1N5819 Series
  - Surface Mount Versions Available
  - TX, TXV, and Space Level Screening Available<sup>2/</sup>

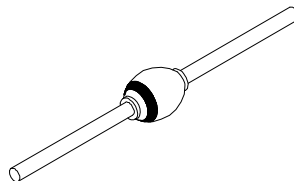
MAXIMUM RATINGS		Symbol	Value	Units
<b>Peak Repetitive Reverse Voltage and DC Blocking Voltage</b>	SPD0801SMS	$V_{RRM}$	80	Volts
	SPD0901SMS	$V_{RWM}$	90	
	SPD1001SMS	$V_R$	100	
<b>Average Rectified Forward Current</b> (Resistive Load, 60 Hz, Sine Wave, $T_A=25^\circ\text{C}$ )		$I_O$	1	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A=25^\circ\text{C}$ )		$I_{FSM}$	40	Amps
<b>Operating and Storage Temperature</b>		$T_{OP} \ \& \ T_{stg}$	-55 to +125	$^\circ\text{C}$
<b>Maximum Thermal Resistance</b>	Junction to Lead, $L=3/8''$	$R_{\theta JL}$	46	$^\circ\text{C/W}$
	Junction to End	$R_{\theta JE}$	20	

**NOTES:**

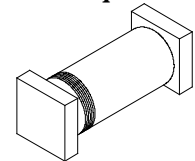
<sup>1/</sup> For ordering information, price, and availability, contact factory.

<sup>2/</sup> Screening based on MIL-PRF-19500. Screening flows available on request.

**Axial Leaded**



**Surface Mount Square Tab (SMS)**



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

**DATA SHEET #: RS0115B**

**DOC**



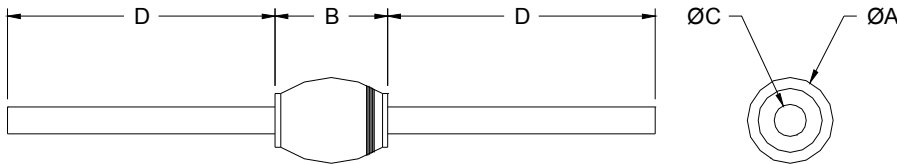
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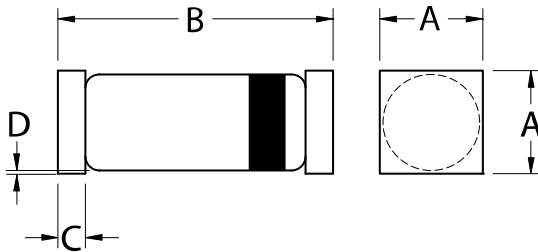
ELECTRICAL CHARACTERISTICS	Symbol	Max	Unit
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 0.5A_{DC}$ , $T_A = 25^\circ C$ , 300 $\mu s$ Pulse) ( $I_F = 1A_{DC}$ , $T_A = 25^\circ C$ , 300 $\mu s$ Pulse)	$V_F$	0.75 0.95	Vdc
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1A_{DC}$ , $T_A = -55^\circ C$ , 300 $\mu s$ Pulse)	$V_F$	1.0	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ C$ , 300 $\mu s$ minimum Pulse)	$I_R$	200	$\mu A$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu s$ minimum Pulse)	$I_R$	10	mA
<b>Junction Capacitance</b> ( $V_R = 10 V_{DC}$ , $T_A = 25^\circ C$ , $f = 1 MHz$ )	$C_J$	30	pF

**Case Outline: (Axial)**



DIMENSIONS		
DIM	MIN	MAX
A	.080"	.107"
B	.160"	.205"
C	.028"	.032"
D	1.00"	---

**Case Outline: (SMS)**



DIMENSIONS		
DIM	MIN	MAX
A	.125"	.135"
B	.180"	.235"
C	.022"	.028"
D	.090"	.110"

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