SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SPD0802 and SMS thru SPD1002 and SMS

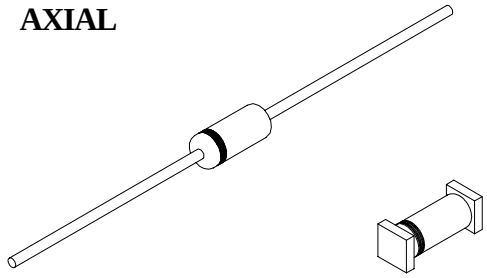
Designer's Data Sheet

2 AMP 80 - 100 VOLTS SCHOTTKY RECTIFIER

FEATURES:

- **PIV to 100 Volts**
- **Extremely Low Forward Voltage Drop**
- **Low Reverse Leakage Current**
- **High Surge Capacity**
- **High Voltage/Current Replacement for 1N5817 - 1N5819 Series**
- **Hermetically Sealed**
- **TX, TXV, and Space Level Screening Available**

AXIAL



SURFACE MOUNT (SMS)

Maximum Ratings		SYMBOL	VALUE	UNITS
Reverse Voltage	**SPD0802 & SMS** **SPD0902 & SMS** **SPD1002 & SMS**	**V_{RRM}** **V_{RWM}** **V_R**	**80** **90** **100**	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T_L or T_E = 55 °C)		**Io**	**2**	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		**I_{FSM}**	**40**	**Amps**
Operating and Storage Temperature Range		**T_{OP} & T_{STG}**	**-55 TO +125**	**°C**
Maximum Thermal Resistance Junction to Lead, L = .25" (Axial Lead) Junction to End Tab (Surface Mount)		 **$R_{\theta JL}$** **$R_{\theta JE}$**	 **15** **12**	**°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 #: RS0006C

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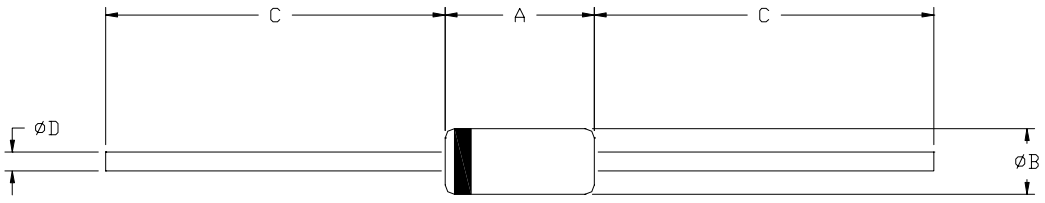
Electrical Characteristics		SYMBOL	MIN	MAX	UNITS
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 - 500µs Pulse)	I_F = 0.5A I_F = 1A I_F = 2A	**V_{F1}** **V_{F2}** **V_{F3}**	-- -- --	**0.73** **0.85** **0.95**	**V_{DC}**
Instantaneous Forward Voltage Drop (I_F = 1A, 300 - 500µs Pulse)	T_A = -55°C T_A = 100°C	**V_{F4}** **V_{F5}**	-- --	**0.88** **0.78**	**V_{DC}**
Reverse Leakage Current (V_R = Rated V_R, T_A = 25°C, 300 µs min Pulse)		**I_{R1}**	--	**100**	**µA**
Reverse Leakage Current (V_R = Rated V_R, T_A = 100°C, 300 µs min Pulse)		**I_{R2}**	--	**2**	**mA**
Junction Capacitance (V_R = 10V, f = 1 MHz, T_A = 25°C)		**C_J**	--	**40**	**pF**

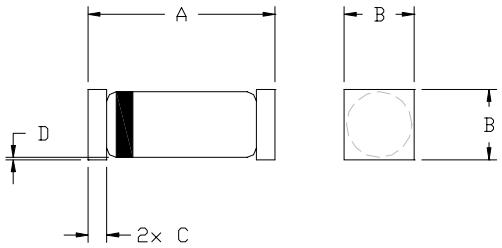
CASE OUTLINE: AXIAL LEAD



DIMENSIONS		
DIM	MIN.	MAX.
A	0.155	0.185"
B	0.080	0.107"
C	1.00"	--
D	.028"	.032"

Dimensions prior to solderdip

CASE OUTLINE: SMS



DIMENSIONS		
DIM	MIN.	MAX.
A	0.200"	0.235"
B	0.125"	0.135"
C	0.020"	0.030"
D	0.002"	--

Dimensions prior to solderdip

NOTES:
Consult manufacturing for operating curves.