



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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SPD0802 and SMS thru SPD1002 and SMS

2 AMP 80 - 100 VOLTS SCHOTTKY RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD

			Screening ^{2/}
			— = Not Screened
			TX = TX Level
			TXV = TXV
			S = S Level
			Package Type
			— = Axial Leaded
			SMS = Surface Mount Square Tab
			Family/Voltage
			0802 = 80 V
			0902 = 90 V
			1002 = 100 V

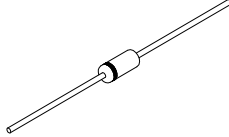
- Features:**
- PIV to 100 Volts
 - Extremely Low Forward Voltage Drop
 - Low Reverse Leakage Current
 - High Surge Capacity
 - HV/Replacement for 1N5817 - 1N5819 Series
 - Hermetically Sealed
 - TX, TXV, and Space Level Screening Available^{2/}
 - Category III metallurgical bond per MIL PRF 19500 appendix A

Maximum Ratings		Symbol	Value	Units
Reverse Voltage	SPD0802 & SMS	VRRM	80	Volts
	SPD0902 & SMS	VRWM	90	
	SPD1002 & SMS	VR	100	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T _L or T _E = 55 °C)		I _o	2	Amps
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}	40	Amps
Operating and Storage Temperature Range		T _{OP} & T _{STG}	-55 to +150	°C
Maximum Thermal Resistance Junction to Lead, L = .25" (Axial Lead) Junction to End Tab (Surface Mount)		R _{θJL}	70	°C/W
		R _{θJE}	50	

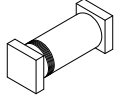
NOTES:

- 1/ For Ordering Information, Price, and Availability- Contact Factory.
- 2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

Axial Lead



Surface Mount Square Tab





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Electrical Characteristic		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (Tj = 25°C, 300 - 500 µsec pulse)	If = 0.5A	Vf1	---	0.73	Volts
	If = 1A	Vf2	---	0.85	
	If = 2A	Vf3	---	0.95	
Instantaneous Forward Voltage Drop (IF = 1A, 300 - 500 µsec pulse)	TA = -55C	Vf4	---	0.88	Volts
	TA = 100C	Vf5	---	0.78	
Reverse Leakage Current (Vr = Rated Vr, TA = 25°C, 300 µsec min pulse)		Ir1	---	100	µA
Reverse Leakage Current (Vr = Rated Vr, TA = 100°C, 300 µsec min pulse)		Ir2	---	2	mA
Junction Capacitance (Vr=10 Vdc, TA=25°C, f=1MHz)		Cj	---	40	pF

Consult manufacturing for operating curves

	DIMENSIONS		
	DIM	MIN	MAX
	A	0.155"	0.185"
	B	0.080"	0.107"
	C	1.00"	--
	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 solder dip

<p>NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.</p>	<p>DATA SHEET #: RS0006F</p>	<p>DOC</p>
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