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

SPD6557 Series

6 AMPS
1300 VOLTS
5 μsec
STANDARD RECOVERY RECTIFIER

Designer's Data Sheet

SPD65 ___ ___ ___

Screening [2/]
__ = Not Screened
TX = TX Level
TXV = TXV
S = S Level

Package Type
___ = Axial
SMS = Surface Mount Square Tab

Family/Voltage
54 = 800 V
55 = 1000 V
56 = 1200 V
57 = 1300 V

FEATURES:

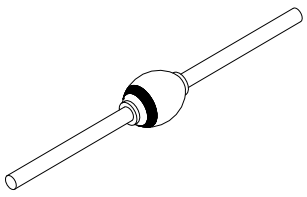
- Standard Recovery: 5 μsec maximum
- PIV up to 1500 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Single Chip Construction
- High Voltage Replacement for 1N5553 &1N5554
- Low Thermal Resistance
- Available with 0.040" diameter leads
- TX, TXV, and Space Level Screening Available[2/]
- Fast Recovery Versions Available. Contact Factory.
- For higher voltages-See SSDI p/n SDR6W

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	**SPD6557** **SPD6556** **SPD6555** **SPD6554**	V_{RRM} V_{RWM} V_R	1300 1200 1000 800	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, T_A=25°C)		I_O	6	**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}	150	**Amps**
Operating and Storage Temperature		T_{OP} & T_{stg}	-65 to +175	**°C**
Maximum Thermal Resistance Junction to Lead, L = 0.125" (Axial Lead) Junction to End Tab (Surface Mount		$R_{\theta JL}$ $R_{\theta JE}$	8 4	**°C/W**

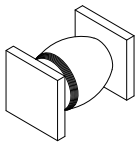
1/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.

2/ Screening Based on MIL-PRF-19500. Screening Flow Available on Request.

Axial



Surface Mount Square Tab (SMS)

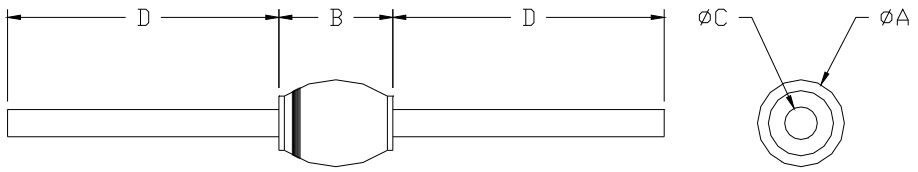


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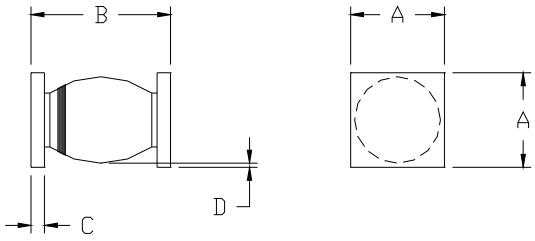
ELECTRICAL CHARACTERISTICS		Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop (I_F = 6 Amps, T_A = 25°C, 300µsec Pulse)	T_A = 25°C T_A = -55°C	V_{F1} V_{F2}	— —	1.15 1.30	**Volts** **Volts**
Reverse Leakage Current (At Rated V_R, 300µsec pulse minimum)	T_A = 25°C T_A = 100°C	I_{R1} I_{R2}	— —	5.0 50	**µA** **µA**
Breakdown Voltage (I_R = 50 µA, T_A = 25°C)	**SPD6557** **SPD6556** **SPD6555** **SPD6554**	V_{BR}	1300 1200 1000 800	— — — —	**Volts**
Junction Capacitance (V_R = 10 V_{DC}, T_A = 25°C, f = 1 MHz)		C_J	—	50	**pF**
Reverse Recovery Time (I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C)		t_{rr}	—	5	**µs**

Case Outline: (Axial)



DIM	MIN	MAX
A	—	0.215”
B	0.210”	0.300”
C	0.047”	0.053”
D	1.00”	—

Case Outline: (SMS)



DIM	MIN	MAX
A	0.195”	0.230”
B	0.260”	0.350”
C	0.020”	0.030”
D	0.002”	—

Note: Dimensions prior to soldering.

NOTES:
Consult manufacturing for operating curves.