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

SRM6 thru SRM12 Series

60 AMPS STANDARD RECOVERY RECTIFIER

600 - 1200 VOLTS

5 μsec

Designer's Data Sheet

Part Number / Ordering Information [1/]

SRM ___ ___ ___

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

Package Type
- __ = Axial
- SMS = Surface Mount Square Tab
- BTR = Button

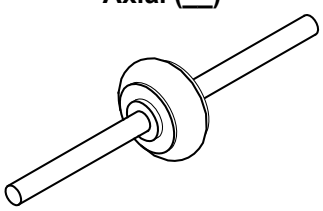
Voltage
- 6 = 600V
- 8 = 800V
- 10 = 1000V
- 12 = 1200V

FEATURES:
- Replacement for DO-4 or DO-5
- Standard recovery: 5 μsec maximum
- PIV to 1200 volts
- Low reverse leakage current
- Hermetically sealed void-free construction
- Monolithic single chip construction
- High surge rating
- Low thermal resistance
- Equivalent to 5961-94022
- TX, TXV, and Space Level Screening Available

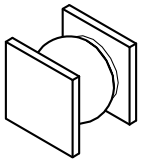
MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	**SRM6** **SRM8** **SRM10** **SRM12**	V_{RRM} V_{RWM} V_R	600 800 1000 1200	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave; Axial, T_L = 100°C; SMS, T_E = 100°C; Button, T_C = 100°C)		I_O	60	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, Superimposed on I_O, Allow Junction to Reach Equilibrium Between Pulses, T_L or T_C = 55°C)		I_{FSM}	800	**Amps**
Operating and Storage Temperature		T_{OP} & T_{stg}	-65 to +175	**°C**
Maximum Thermal Resistance Junction to Lead, L = 3/8" Junction to End Tab Junction to End	 Axial (__) SMS Button (BTR)	 $R_{\theta JL}$ $R_{\theta JE}$ $R_{\theta JC}$	 3 2.5 1	**°C/W**

Notes: 1/ For ordering information, price, operating curves, and availability- Contact factory.
2/ Screening based on MIL-PRF-19500. Screening flows available on request.
3/ Unless otherwise specified, all maximum ratings/electrical characteristics @25°C.

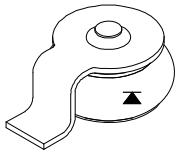
Axial (__)



Surface Mount Square Tab (SMS)



Button (BTR)



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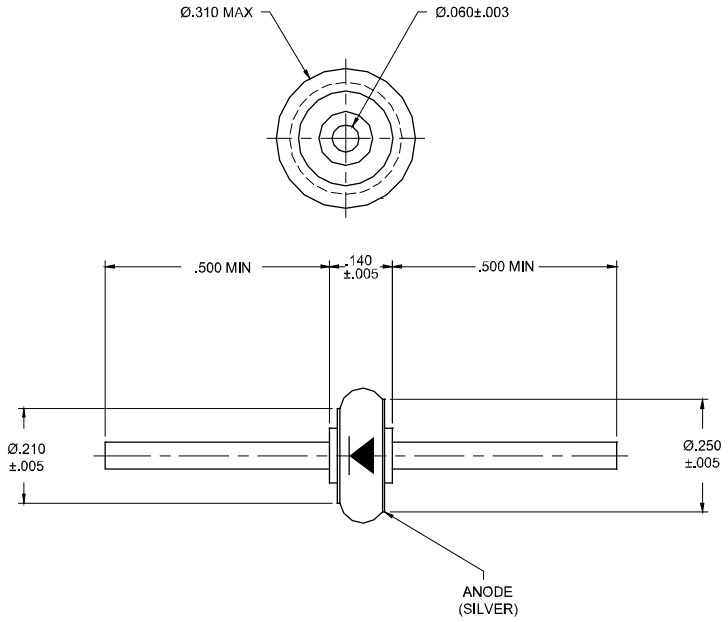
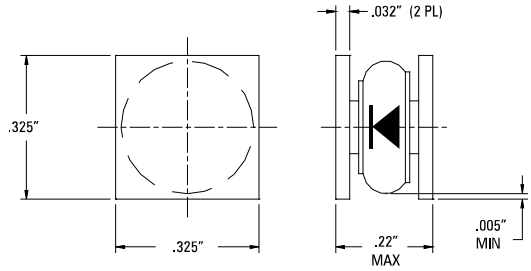
ELECTRICAL CHARACTERISTICS		Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop (I_F = 20 A_{DC}, 300μsec min pulse)	T_A = 25°C T_A = -55°C	V_{F1} V_{F2}	— —	1.05 1.15	V_{DC}
(I_F = 60 A_{DC}, 300μsec min pulse)	T_A = 25°C	V_{F3}	—	1.20	V_{DC}
Reverse Leakage Current (Rated V_R, 300 μsec min pulse)	T_A = 25°C T_A = 100°C	I_{R1} I_{R2}	— —	2.0 500	μA
Junction Capacitance (V_R =10 V_{DC}, T_A = 25°C, f = 1 MHz)		C_J	—	250	pF
Reverse Recovery Time (I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C)		t_{rr}	—	5	μsec

Case Outline: AXIAL



TOLERANCES: (unless otherwise specified)
.XX±.03, .XXX±.010

Case Outline: SMS



Case Outline: SRM Button