



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

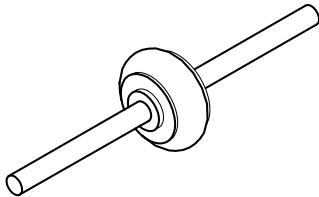
Voltage
 6 = 600V
 8 = 800V
 10 = 1000V
 12 = 1200V

- 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

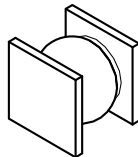
MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SRM6	V_{RRM} V_{RWM} V_R	600	Volts
	SRM8		800	
	SRM10		1000	
	SRM12		1200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave; Axial, $T_L = 100^\circ\text{C}$; SMS, $T_E = 100^\circ\text{C}$; Button, $T_C = 100^\circ\text{C}$)		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 $T_C = 55^\circ\text{C}$)		I_{FSM}	800	Amps
Operating and Storage Temperature		$T_{OP} \ \& \ T_{stg}$	-65 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Lead, $L = 3/8''$ Junction to End Tab Junction to End	Axial (___)	$R_{\theta JL}$	3	$^\circ\text{C/W}$
	SMS	$R_{\theta JE}$	2.5	
	Button (BTR)	$R_{\theta JC}$	1	

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.

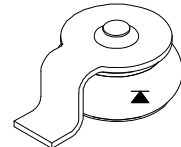
Axial (___)



Surface Mount Square Tab (SMS)



Button (BTR)





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

