



PRELIMINARY

# SOLID STATE DEVICES, INC.

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

## Designer's Data Sheet

### FEATURES:

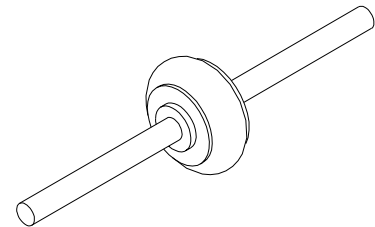
- Replaces DO-4 or DO-5
- Standard Recovery: 5  $\mu$ sec maximum
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed Void-Free Construction <sup>1/</sup>
- Monolithic Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in Surface Mount Version
- Equivalent to 5961-94022.
- TX, TXV and Space Level Screening Available

<sup>1/</sup> PIND Testing not required on Void-Free Devices per MIL-PRF-19500

**SRM5  
thru  
SRM10**

**20 AMP  
500 - 1000 VOLTS  
5  $\mu$ sec  
STANDARD RECOVERY  
RECTIFIER**

AXIAL



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SRM5	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	500	Volts
	SRM6		600	
	SRM7		700	
	SRM8		800	
	SRM9		900	
	SRM10		1000	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T <sub>A</sub> = 25 °C)		I <sub>o</sub>	20	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I <sub>o</sub> , allow junction to reach equilibrium between pulses, T <sub>A</sub> = 25°C)		I <sub>FSM</sub>	375	Amps
Operating and Storage Temperature		Top & Tstg	-65 TO +175	°C
Maximum Thermal Resistance Junction to Lead, L = 3/8"		R <sub>θJL</sub>	3	°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 #: RC0046E**

# SRM5 thru SRM10

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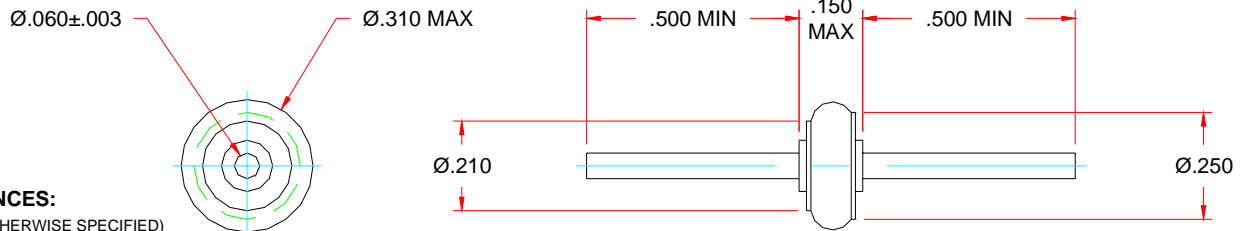


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Electrical Characteristics		SYMBOL	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 20A_{DC}$ , $T_A = 25^\circ C$ , 300 $\mu$ sec min pulse)	$T_A = 25^\circ C$	$V_{F1}$	1.05	$V_{DC}$
	$T_A = -55^\circ C$	$V_{F2}$	1.15	
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ sec min pulse)	$T_A = 25^\circ C$	$I_{R1}$	2.0	$\mu A$
	$T_A = 100^\circ C$	$I_{R2}$	500	
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ C$ , $f = 1MHz$ )		$C_J$	250	$pF$
<b>Reverse Recovery Time</b> ( $I_F = 500 mA$ , $I_R = 1 A$ , $I_{RR} = 250 mA$ , $T_A = 25^\circ C$ )		$t_{RR}$	5	$\mu$ sec

## CASE OUTLINE: AXIAL



**TOLERANCES:**  
(UNLESS OTHERWISE SPECIFIED)

- .XX  $\pm .03$
- .XXX  $\pm .010$

