



PRELIMINARY

SOLID STATE DEVICES, INC.

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

**SRM5SMS
thru
SRM10SMS**

**20 AMP
500 - 1000 VOLTS
5 μsec**

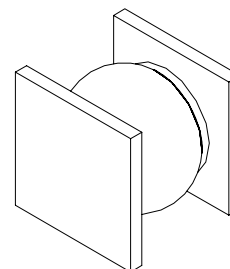
**STANDARD RECOVERY
RECTIFIER**

Designer's Data Sheet

FEATURES:

- Replaces DO-4 or DO-5
- Standard Recovery: 5 μsec maximum
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in Axial Lead Version
- Equivalent to 5961-94022.
- TX, TXV and Space Level Screening Available

SURFACE MOUNT SQUARE TAB



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SRM5SMS	V_{RRM}	500	Volts
	SRM8SMS	V_{RWM}	800	
	SRM10SMS	V_R	1000	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	20	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)		I_{FSM}	375	Amps
Operating and Storage Temperature		Top & Tstg	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to End Tab		$R_{\theta JE}$	2.5	$^\circ\text{C/W}$

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0045D

SRM5SMS thru SRM10SMS

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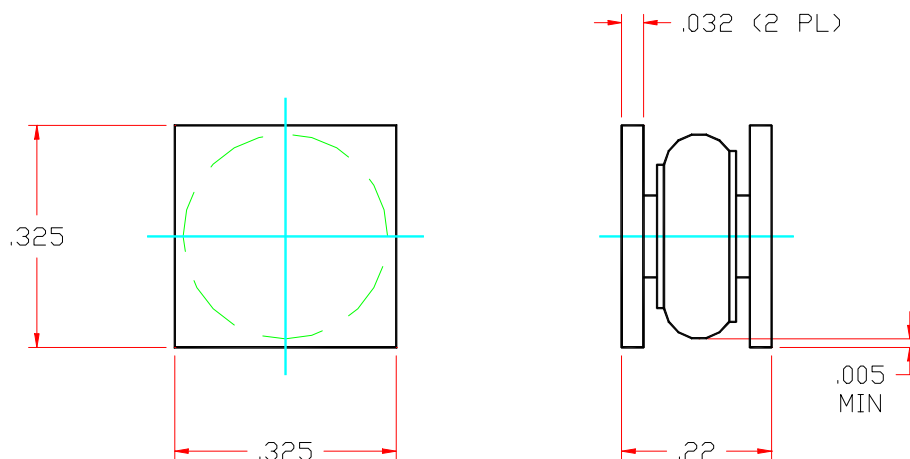


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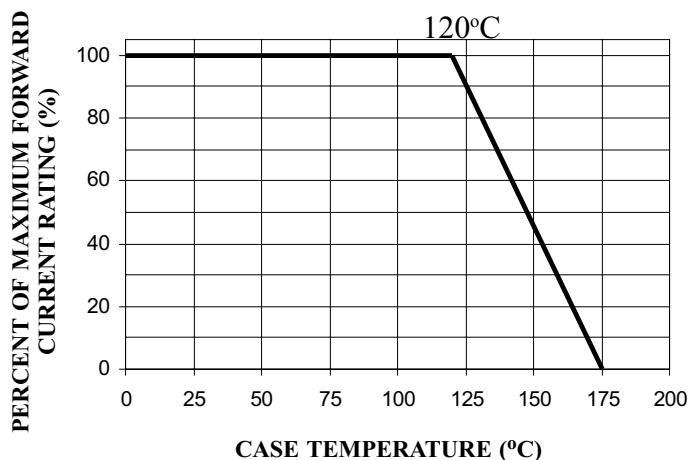
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Electrical Characteristics		SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($I_F = 20A_{DC}$, $T_A = 25^\circ C$, 300 μ sec min pulse)	$T_A = 25^\circ C$	V_{F1}	1.05	V_{DC}
	$T_A = -55^\circ C$	V_{F2}	1.15	
Reverse Leakage Current (Rated V_R , 300 μ sec min pulse)	$T_A = 25^\circ C$	I_{R1}	2.0	μA
	$T_A = 100^\circ C$	I_{R2}	500	
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)		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

CASE OUTLINE: SURFACE MOUNT SQUARE TAB



POWER DERATING CURVE



FORWARD VOLTAGE (V_f)

