



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

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Designer's Data Sheet

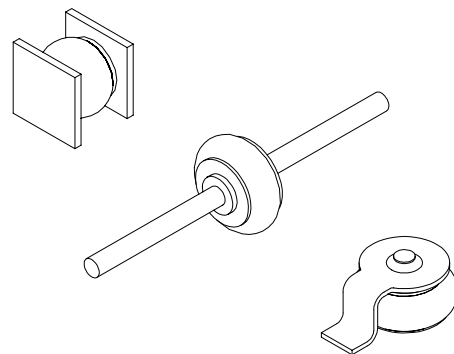
FEATURES:

- Replaces DO-4 and DO-5
- Ultra Fast Recovery
- PIV to 1200 Volts
- Low Reverse Leakage
- Hermetically Sealed Void-Free Construction ^{1/}
- Monolithic Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Equivalent to 1N6690 - 1N6693.
- TX, TXV and Space Level Screening Available

^{1/} PIND Testing not required on Void-Free Devices per MIL-PRF-19500

**SRM6UF, SMS, & BTR
thru
SRM12UF, SMS, & BTR**

**20 AMP
600 - 1200 VOLTS
75 ns
ULTRA FAST
RECTIFIER**



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SRM6UF SRM8UF SRM10UF SRM12UF	V_{RRM} V_{RWM} V_R	600 800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_C = 100^\circ\text{C}$)		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 Case	Axial Lead, L = 3/8" ()	$R_{\theta JL}$	3.0	$^\circ\text{C/W}$
	Square Tab (SMS)	$R_{\theta JE}$	2.5	
	Button (BTR)	$R_{\theta JC}$	1.0	

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

DATA SHEET #: RU0129E

**SRM6UF, SMS, & BTR
thru
SRM12UF, SMS, & BTR**

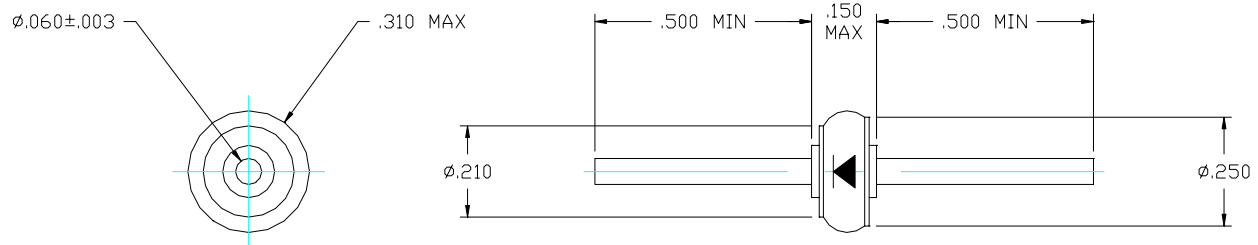


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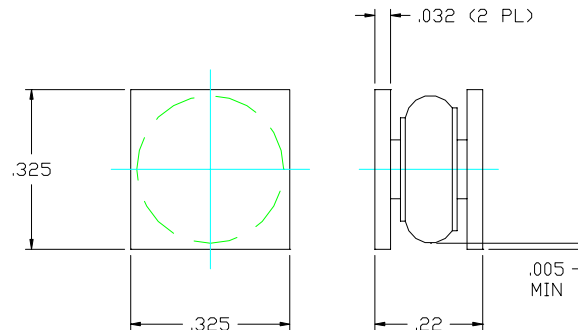
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Electrical Characteristics		SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($I_F = 20A_{DC}$, 300 - 500 μ sec Pulse)	$T_A = 25^\circ C$ $T_A = -55^\circ C$	V_{F1} V_{F2}	1.9 2.2	V_{DC}
Reverse Leakage Current (Rated V_R , 300 μ sec pulse minimum)	$T_A = 25^\circ C$ $T_A = 100^\circ C$	I_{R1} I_{R2}	10 2.0	μA mA
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}	75	nsec

CASE OUTLINE: Axial Leded ()



**CASE OUTLINE:
Surface Mount Square Tab (SMS)**



**CASE OUTLINE:
Surface Mount Button (BTR)**

