

20 AMP
Ultra Fast Rectifier
600-1200 Volts
75 nsec

SRM **UF**

Screening^{2/}

Package Type

Voltage

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

— = Not Screened
TX = TX Level
TXV = TXV
S = S Level

— = Axial
SMS = Surface Mount Square Tab
BTR = Button

- Replaces DO-4 and DO-5
- Ultra Fast Recovery
- PIV to 1200 Volts
- Low Reverse Leakage Current
- Hermetically Sealed Void-Free Construction^{3/}
- Monolithic Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Equivalent to 1N6690-1N6693
- TX, TXV, and Space Level Screening Available

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage 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, Axial Tc≤55°C; SMS/BTR Tc≤100°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°C)		I_{FSM}	375	Amps
Operating and Storage Temperature		T _{op} & T _{stg}	-65 to +175	°C
Maximum Thermal Resistance (Axial – Junction to Lead, L=1/8") (SMS – Junction to End Tab) (Button – Junction to Case)	Axial () Square Tab (SMS) Button (BTR)	$R_{\theta JL}$ $R_{\theta JE}$ $R_{\theta JC}$	3.4 2.5 1.0	°C/W

3/ PIND testing not required on void free devices per MIL-PRF-19500.

A diagram showing a sphere positioned between two parallel rectangular plates. The sphere is in contact with both plates, and the plates are oriented vertically, parallel to each other.

DOC



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

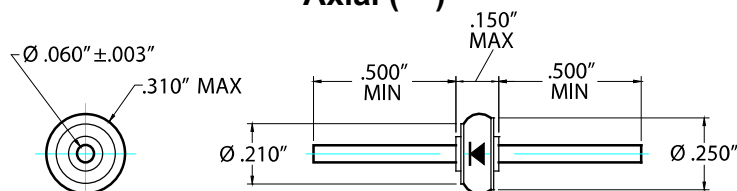
SRM6UF thru SRM12UF Series

©

ELECTRICAL CHARACTERISTICS		Symbol	Max	Unit
Instantaneous Forward Voltage Drop ($I_F = 20\text{Adc}$, 300-500 μsec Pulse, $T_A = 25^\circ\text{C}$)	SRM6UF & SRM8UF SRM10UF & SRM12UF	V_{F1}	1.90 2.25	Vdc
Instantaneous Forward Voltage Drop ($I_F = 20\text{Adc}$, 300-500 μsec Pulse, $T_A = -55^\circ\text{C}$)	SRM6UF & SRM8UF SRM10UF & SRM12UF	V_{F2}	2.4 2.5	Vdc
Reverse Leakage Current (Rated V_R , 300 μsec Pulse Minimum, $T_A = 25^\circ\text{C}$)		I_{R1}	10	μA
Reverse Leakage Current (Rated V_R , 300 μsec Pulse Minimum, $T_A = 100^\circ\text{C}$)		I_{R2}	2.0	mA
Junction Capacitance ($V_R = 10\text{ V}_{DC}$, $f = 1\text{MHz}$, $T_A = 25^\circ\text{C}$)	SRM6UF & SRM8UF SRM10UF & SRM12UF	C_J	350 250	pF
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$, $T_A = 25^\circ\text{C}$)	SRM6UF & SRM8UF SRM10UF & SRM12UF	t_{rr}	75 85	nsec

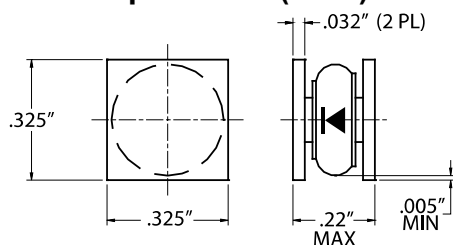
CASE OUTLINES:

Axial ()

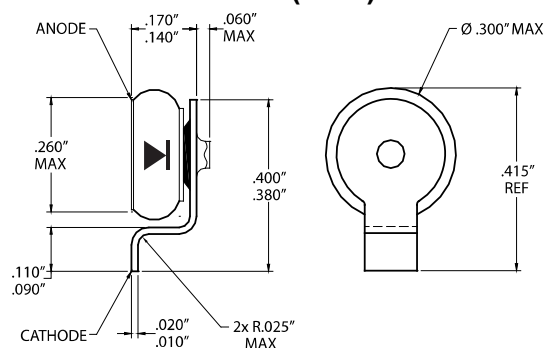


TOLERANCES
(UNLESS SPECIFIED)
.XX $\pm .03$ "
.XXX $\pm .010$ "

Square Tab (SMS)



Button (BTR)



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

DATA SHEET #: RU0129G

DOC