PRELIMINARY

SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SRM6SBTR thru SRM12SBTR

Designer's Data Sheet

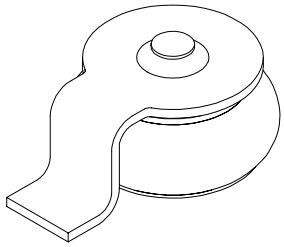
60 AMP 600 - 1200 VOLTS 5 μs STANDARD RECOVERY RECTIFIER

FEATURES:

- **Replaces DO-4 and DO-5**
- **Standard Recovery**
- **PIV to 1200 Volts**
- **Low Reverse Leakage**
- **Hermetically Sealed Void-Free Construction** 1/
- **Monolithic Single Chip Construction**
- **High Surge Rating**
- **Low Thermal Resistance**
- **Available in Axial Lead Versions and Cathode Button. Consult Factory.**
- **TX, TXV and Space Level Screening Available**

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

SURFACE MOUNT BUTTON



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	**SRM6SBTR** **SRM8SBTR** **SRM10SBTR** **SRM12SBTR**	V_{RRM} V_{RWM} V_R	**600** **800** **1000** **1200**	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T_C = 100 °C		**Io**	**60**	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		I_{FSM}	**375**	**Amps**
Operating and Storage Temperature		**Top & Tstg**	**-65 TO +175**	**°C**
Maximum Thermal Resistance Junction to Case		$R_{\theta JC}$	**1.0**	**°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 #: RC0035D

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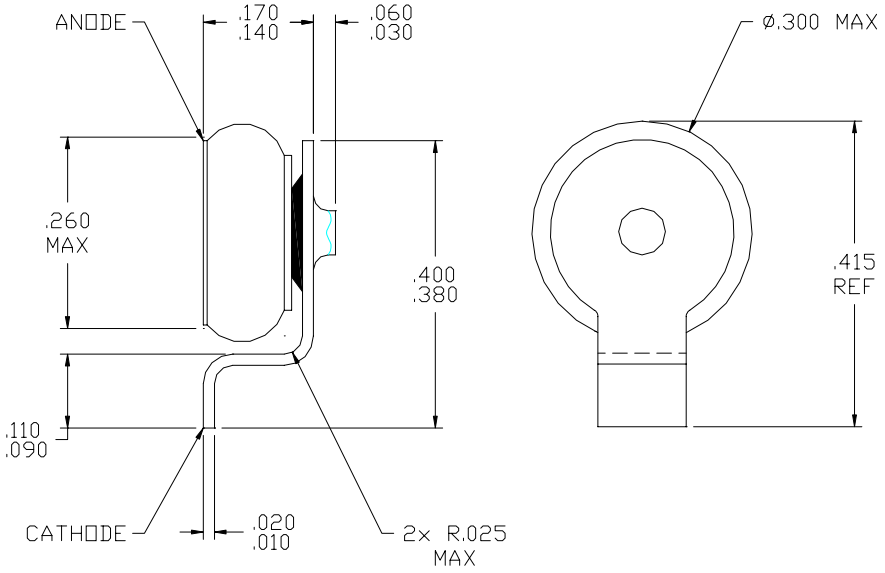
Electrical Characteristics		SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop (T_A = 25 °C, 300 - 500 µsec Pulse)	I_F = 20A_{DC} I_F = 60A_{DC}	**V_{F1}** **V_{F2}**	**1.05** **1.20**	**V_{DC}**
Reverse Leakage Current (Rated V_R , 300µsec pulse minimum)	T_A = 25°C T_A = 100°C	**I_{R1}** **I_{R2}**	**20** **2.0**	**µA** **mA**
Junction Capacitance (V_R = 10V_{DC}, T_A = 25°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°C)		**t_{RR}**	**5**	**µsec**

CASE OUTLINE: SURFACE MOUNT BUTTON



POWER DERATING CURVE