PRELIMINARY

SDRP600S10 thru SDRP600S20

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada,CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

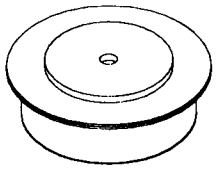
Designer's Data Sheet

600 AMPS
1000-2000 VOLTS
25µsec
STANDARD RECOVERY
HIGH CURRENT RECTIFIER

FEATURES:

- Forward current to 600 Amps
- PIV to 2000 Volts
- Transient Voltage rating of 200 Volts above PIV
- Pressure contact device (mounting force:1000 lbs)
- Single Chip construction
- Low forward voltage drop
- Hermetically sealed
- For High Power applications
- TX, TXV, and Space Level Screening available

HOCKEY PUCK



MAXIMUM RATINGS

RATING (Note 1)	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage **SDRP600S10** **SDRP600S15** **SDRP600S20**	V_{RRM} V_{RWM} V_R	1000 1500 2000	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	600	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	I_{FSM}	5000	**Amps**
Operating and storage temperature	T_{op} & T_{stg}	-55 to +175	**°C**
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.14	**°C/W**

Note 1: Mounting force=1000 lbs

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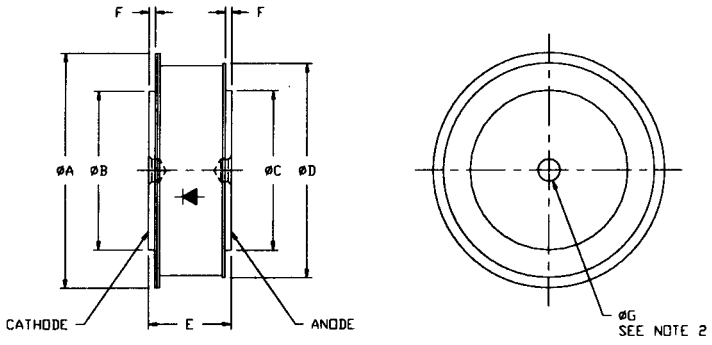
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 600 Adc Pulse, TJ=25°C)	VF	1.25	Vdc
Instantaneous Forward Voltage Drop (IF = 600 Adc Pulse, TJ= +175°C)	VF	1.20	Vdc
Reverse Leakage Current (Rated VR pulse, TJ=25°C)	IR	2	mA
Reverse Leakage Current (Rated VR pulse, TJ=175°C)	IR	40	mA
Reverse Recovery Time (IFM=600 A, VR=400V, di/dt= -25µs, Rs=10Ω, Cs=0.5µF, TA=25°C)	trr	25	µsec

CASE OUTLINE: HOCKEY PUCK



DIMENSIONS	
øA	1.47"
øB	0.995" ± .005
øC	1.000" ± .005
øD	1.34"
E	0.52"
F	.020"
øG	.140" (note 2)

Notes:
1. Tolerance on all dimensions to be ±.020" unless otherwise specified.
2. 0.068" ± .005 Deep (2 pl) .020" x 45° chamf

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

