



PRELIMINARY

SOLID STATE DEVICES, INC

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

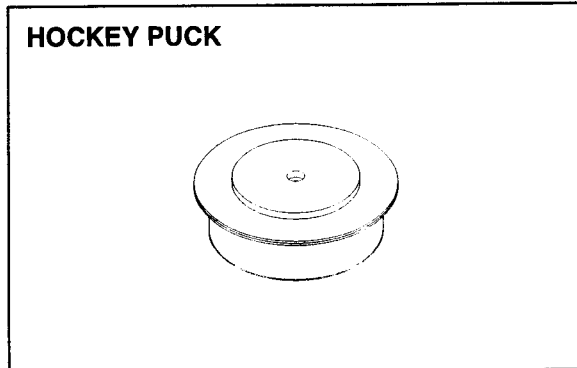
**SDRP400S10
thru
SDRP400S20**

Designer's Data Sheet

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

FEATURES:

- Forward current to 400 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
- Fast Recovery version available (0.7 usec typical)
- Higher Voltage versions up to 5000 volts available
- TX, TXV, and Space Level Screening available



MAXIMUM RATINGS

RATING (Note 1)	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	1000	Volts
	VRWM	1500	
	VR	2000	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	Io	400	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	3500	Amps
Operating and storage temperature	Top & Tstg	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.14	°C/W

Note 1: Mounting force=1000 lbs

SDRP400S10 thru SDRP400S20

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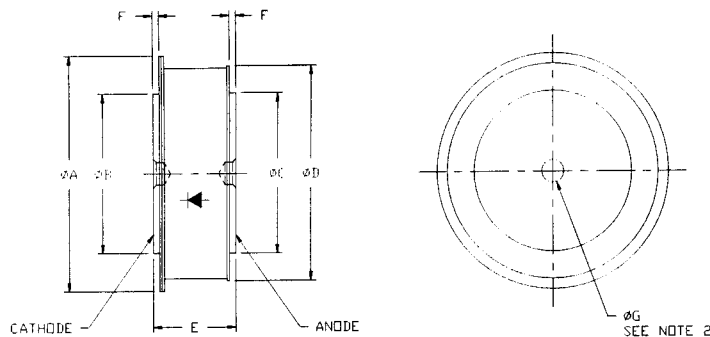
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 400 Adc Pulse, TJ=25°C)	VF	1.15	Vdc
Instantaneous Forward Voltage Drop (IF = 400 Adc Pulse, TJ= +175°C)	VF	1.1	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=400 A, VR=400V, di/dt= -25μs, Rs=10Ω, Cs=0.5μF, TA=25°C)	trr	25	μsec

CASE OUTLINE: HOCKEY PUCK



DIMENSIONS

ϕA	1.47"
ϕB	0.995" \pm .005
ϕC	1.000" \pm .005
ϕD	1.34"
E	0.52"
F	.020"
ϕG	.140" (note 2)

Notes:

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

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

