



PRELIMINARY

# SOLID STATE DEVICES, INC

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

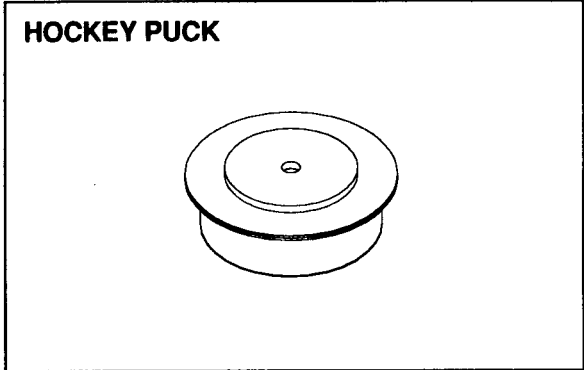
**SDRP800S10  
thru  
SDRP800S20**

## Designer's Data Sheet

### FEATURES:

- Forward current to 800 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

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



## 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	800	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	6500	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

# SDRP800S10 thru SDRP800S20

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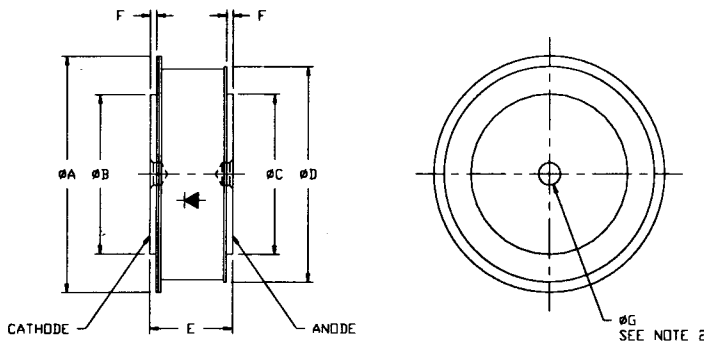
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## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 800 A dc pulse, TJ=25°C)	VF	1.35	Vdc
Instantaneous Forward Voltage Drop (IF = 800 A dc pulse, TJ= +175°C)	VF	1.30	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=800 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

