



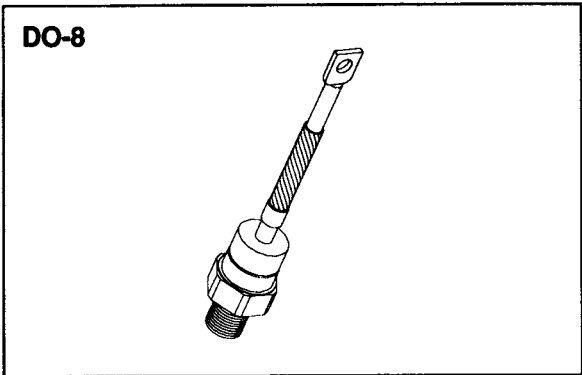
PRELIMINARY

# SOLID STATE DEVICES, INC

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

**SDR8400S4  
thru  
SDR8400S12**

**400 AMPS  
400-1200 VOLTS  
15µsec  
STANDARD RECOVERY  
HIGH CURRENT RECTIFIER**



## Designer's Data Sheet

### FEATURES:

- Forward current to 400 Amps
- PIV to 1200 Volts
- Transient Voltage rating of 200 Volts above PIV
- Pressure contact device
- Single Chip construction
- Low forward voltage drop
- Hermetically sealed
- For High Power applications
- For reverse polarity ad suffix "R"
- 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
<b>Peak Repetitive Reverse and DC Blocking Voltage</b> SDR8400S4 SDR8400S6 SDR8400S8 SDR8400S10 SDR8400S12	VRRM  VRWM  VR	400 600 800 1000 1200	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	400	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	2200	Amps
<b>Operating and storage temperature</b>	Top & Tstg	-55 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to Case	RθJC	0.25	°C/W

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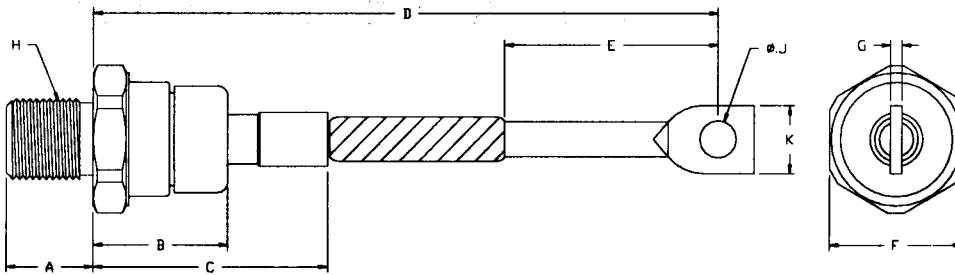
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**ELECTRICAL CHARACTERISTICS**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 400 Adc pulse, TJ=25°C)	VF	1.55	Vdc
Instantaneous Forward Voltage Drop (IF = 400 Adc pulse, TJ= +175°C)	VF	1.50	Vdc
Reverse Leakage Current (Rated VR pulse, TJ=25°C)	IR	1.5	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	15	μsec

**CASE OUTLINE: DO-8**



DIM	MIN	MAX
A	0.60"	0.65"
B	---	1.6"
C	---	1.675"
D	3.8"	6.0"
E	0.8"	2.2" typ
F	1.031"	1.063"
G	0.050"	0.100"
H	.375-24UNF	
J	0.250"	0.310"
K	0.437"	0.650"

**TYPICAL OPERATING CURVES**

TA=25°C Unless otherwise specified

