



PRELIMINARY

SOLID STATE DEVICES, INC

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

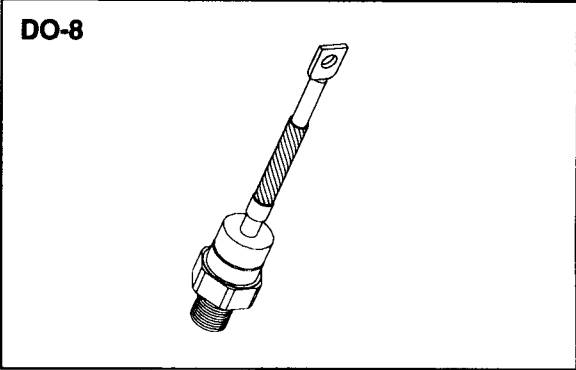
**SDR8300S4
thru
SDR8300S12**

Designer's Data Sheet

FEATURES:

- Forward current to 300 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

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



MAXIMUM RATINGS

RATING (Note 1)	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	SDR8300S4	400	Volts
	SDR8300S6	600	
	SDR8300S8	800	
	SDR8300S10	1000	
	SDR8300S12	1200	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	300	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	1800	Amps
Operating and storage temperature	Top & Tstg	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.25	°C/W

SDR8300S4 thru SDR8300S12

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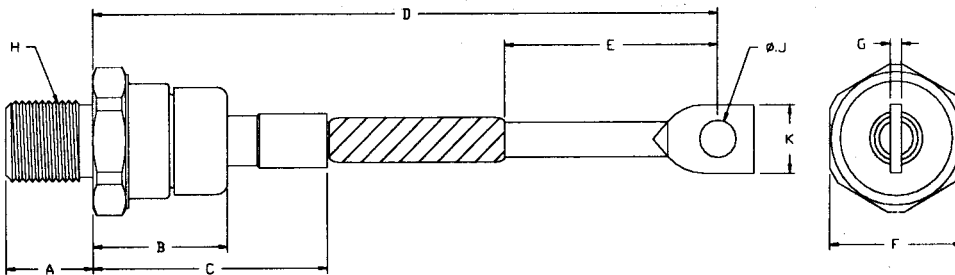
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 300 Adc Pulse, TJ=25°C)	VF	1.50	Vdc
Instantaneous Forward Voltage Drop (IF = 300 Adc Pulse, TJ= +175°C)	VF	1.45	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=300 A, VR=400V, di/dt= -25µs, Rs=10Ω, Cs=0.5µF, TA=25°C)	t _{rr}	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

