PRELIMINARY

SDR9800S10 thru SDR9800S20

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

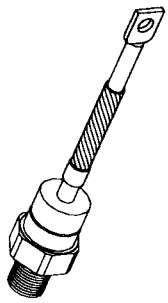
Designer's Data Sheet

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

FEATURES:

- Forward current to 800 Amps
- PIV to 2000 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

DO-9



MAXIMUM RATINGS

RATING (Note 1)	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage **SDR9800S10** **SDR9800S15** **SDR9800S20**	V_{RRM} V_{RWM} V_R	1000 1500 2000	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	800	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	I_{FSM}	6500	**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

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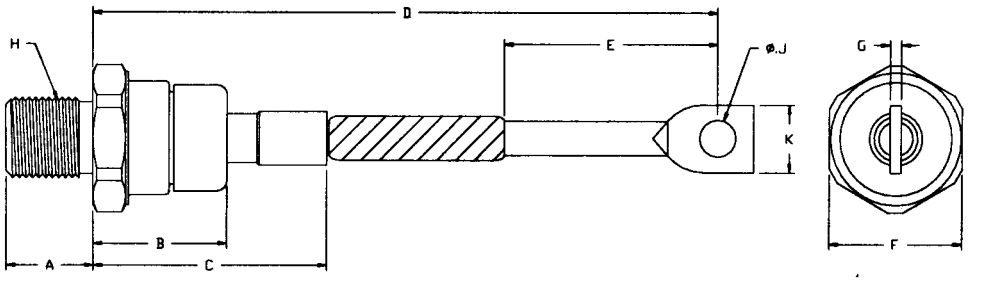
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 800 Adc pulse, TJ=25°C)	VF	1.35	Vdc
Instantaneous Forward Voltage Drop (IF = 800 Adc 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: DO-9



DIM	MIN	MAX
A	0.79"	0.83"
B	---	1.6"
C	---	2.25"
D	5.00"	6.00"
E	0.8"	2.2"typ
F	1.212"	1.250"
G	0.063"	0.172"
H	0.75-16UNF	
J	0.265"	0.350"
K	0.530"	0.755"

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified