Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR8200S4 thru SDR8200S12

200 AMPS 400 – 1200 VOLTS 15 µsec STANDARD RECOVERY HIGH CURRENT RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information

SDR8200S ___ ___ ___

Screening [1/]
__ = Not Screened
TX = TX Level
TXV = TXV
S = S Level

Package Type
__ = DO-8

Voltage/Family
4 = 400V
6 = 600V
8 = 800V
10 = 1000V
12 = 1200V

FEATURES:

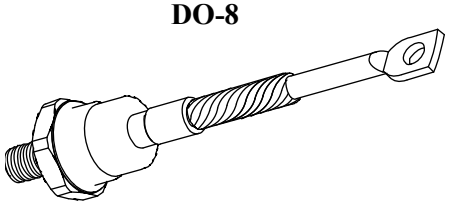
- **Forward Current to 200 Amps**
- **PIV to 1200 Volts**
- **Transient Voltage Rating of 200 Volts Above PIV**
- **Single Chip Construction**
- **Hermetically Sealed**
- **For High Power Applications**
- **For Reverse Polarity Version Add Suffix "R"**
- **Fast Recovery Version Available**
- **TX, TXV, and Space Level Screening Available**

MAXIMUM RATINGS		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	**SDR8200S4**	V_{RRM}	400	**Volts**
	SDR8200S6		600	
	SDR8200S8	V_{RWM}	800	
	SDR8200S10		1000	
	SDR8200S12	V_R	1200	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, T_A=25°C)		I_O	200	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T_A=25°C)		I_{FSM}	1400	**Amps**
Operating and Storage Temperature		T_{OP} & Tstg	-55 to +175	°C
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	0.4	°C/W

NOTES:

1/ Modified MIL-PRF-19500 Screening Flow – Consult Factory.

DO-8



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	**DATA SHEET #: RP0013B**	**DOC**

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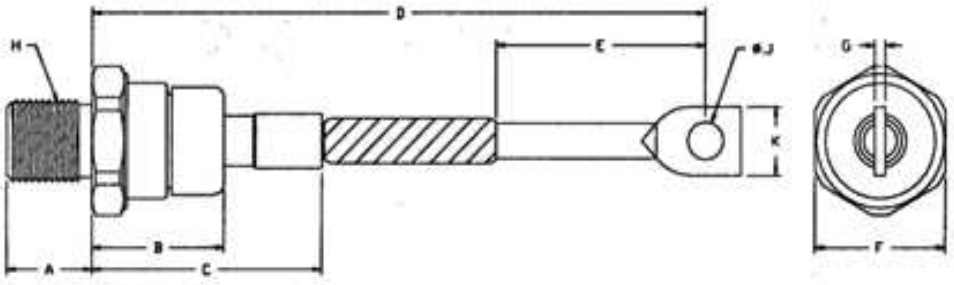
ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop (I_F = 200 Adc Pulse, T_J = 25°C)	V_F	1.45	**Vdc**
Instantaneous Forward Voltage Drop (I_F = 200 Adc Pulse, T_J = +175°C)	V_F	1.40	**Vdc**
Reverse Leakage Current (Rated V_R pulse, T_J = 25°C)	I_R	1	**mA**
Reverse Leakage Current (Rated V_R pulse, T_J = 175°C)	I_R	40	**mA**
Reverse Recovery Time (I_{FM} = 200 A, V_R = 400 V, di/dt = -25 µs, R_S = 10Ω, C_S = 0.5 µF, T_A = 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"

*For information on curves, contact the Factory Representative for Engineering Assistance.

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified