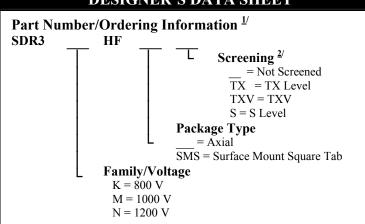


Solid State Devices, Inc.

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

DESIGNER'S DATA SHEET



SDR3KHF & SDR3KHFSMS thru SDR3NHF & SDR3NHFSMS

3 AMP 800 - 1200 V 35 nsec Hyper Fast Rectifier

Features:

- Hyper Fast Recovery: 35 nsec maximum
- PIV to 1200 Volts
- · Hermetically Sealed
- Void Free Construction
- For High Efficiency Applications
- Single Chip Construction
- Low Reverse Leakage
- TX, TXV, S Level screening Available^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR3KHF SDR3MHF SDR3NHF	$egin{array}{c} V_{ m RRM} \ V_{ m RSM} \ V_{ m R} \end{array}$	800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60 hz Sine Wave, T _L = 25 °C)		Io	3.0	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _L = 25 °C)		I_{FSM}	70	Amps
Operating & Storage Temperature		T _{OP} & T _{STG}	-65 to +175	°C
Maximum Thermal Resistance Junction t	o Leads, L = 1/4" Junction to Tabs	$R_{ heta m JE}$	16 12	°C/W

- 1/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.
- 2/ Screening Based on MIL-PRF-19500. Screening Flow Available on Request.

Axial Lead Diode

SMS





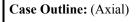


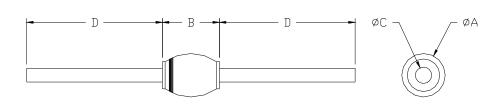
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SDR3DHF & SDR3DHFSMS thru SDR3NHF & SDR3NHFSMS

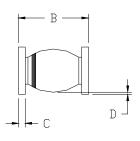
Electrical Characteristic		Symbol	Max	Units
Instantaneous Forward Voltage Drop (T _A = 25°C, pulsed)	$I_{F} = 1A$ $I_{F} = 3A$	$egin{array}{c} V_{F1} \ V_{F2} \end{array}$	1.9 3.1	V_{DC}
Instantaneous Forward Voltage Drop (T _A = -55°C, pulsed)	$I_{F} = 1A$ $I_{F} = 3A$	$egin{array}{c} V_{F3} \ V_{F4} \end{array}$	2.0 3.2	V_{DC}
Reverse Leakage Current (Rated V _R , T _A = 25°C, pulsed)		I_{R1}	10	μΑ
Reverse Leakage Current (Rated V _R , T _A = 100°C, pulsed)		I_{R2}	300	μΑ
Reverse Recovery Time $(I_F = 500 \text{mA}, I_R = 1 \text{A}, I_{RR} = 250 \text{mA}, T_A = 25^{\circ}\text{C})$		t _{RR}	35	nsec
Junction Capacitance (V _R = 10V _{DC} , f = 1MHz, T _A = 25°C)		$C_{ m J}$	30	pF

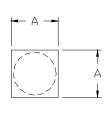




DIM	MIN	MAX
A		0.165"
В	_	0.220"
C	0.047"	0.053"
D	0.950"	

Case Outline: (SMS)





DIM	MIN	MAX
A	0.172"	0.180"
В	0.180"	0.280"
C	0.022"	0.028"
D	0.002"	