Solid State Devices, Inc.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR3KHF & SDR3KHFSMS thru SDR3NHF & SDR3NHFSMS

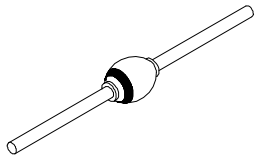
DESIGNER'S DATA SHEET

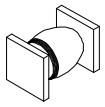
Features:

- 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

3 AMP
800 - 1200 V
35 nsec
Hyper Fast Rectifier

Axial Lead Diode **SMS**





Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SDR3KHF** **SDR3MHF** **SDR3NHF**	V_{RRM} V_{RSM} V_R	800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60 hz Sine Wave, T_A = 25 °C)		Io	3.0	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T_A = 25 °C)		I_{FSM}	70	Amps
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +175	ºC
Maximum Thermal Resistance	Junction to Leads, L = 3/8 Junction to Tabs	$R_{?JE}$	20 14	ºC/W

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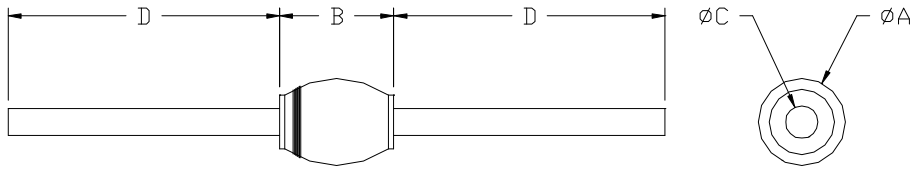
SDR3DHF & SDR3DHFSMS thru SDR3NHF & SDR3NHFSMS

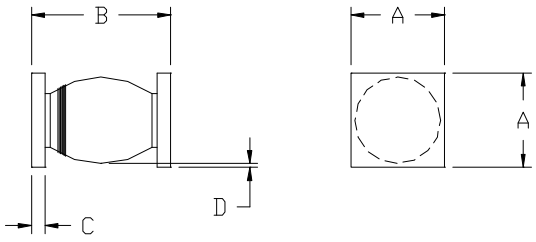
Electrical Characteristic			Symbol	Max	Units
Instantaneous Forward Voltage Drop (T_A = 25ºC, pulsed)	SDR3KHF – SDR3NHF	3A 1A	$\mathbf{V_{F1}}$ $\mathbf{V_{F2}}$	3.1 1.9	V_{DC}
Instantaneous Forward Voltage Drop (T_A = -55ºC, pulsed)	SDR3KHF – SDR3NHF	1A	$\mathbf{V_{F3}}$	2.0	V_{DC}
Reverse Leakage Current (Rated V_R, T_A = 25ºC, pulsed)			$\mathbf{I_{R1}}$	10	µA
Reverse Leakage Current (Rated V_R, T_A = 100ºC, pulsed)			$\mathbf{I_{R2}}$	300	µA
Reverse Recovery Time (**I_F** = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25ºC)			$\mathbf{t_{RR}}$	35	nsec
Junction Capacitance (V_R = 10V_{DC}, f = 1MHz, T_A = 25ºC)			$\mathbf{C_J}$	30	pF

Case Outline: (Axial)



DIM	MIN	MAX
A	—	0.165”
B	—	0.220”
C	0.047”	0.053”
D	0.950”	—

Case Outline: (SMS)



DIM	MIN	MAX
A	0.172”	0.180”
B	0.180”	0.280”
C	0.022”	0.028”
D	0.002”	--