



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

SRH20HF thru SRH30HF Series

**1.5 AMP
 2,000 - 3,000 VOLTS
 HYPER FAST RECOVERY
 HIGH VOLTAGE RECTIFIER**

Designer's Data Sheet

Part Number / Ordering Information^{1/}

SRH HF

Screening^{2/} ___ = None
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package
 ___ = Axial
 SMS = Surface Mount Square Tab

Recovery Time
 HF = Hyper Fast

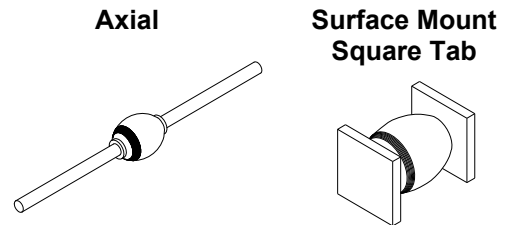
Voltage
 20 = 2,000 V
 25 = 2,500 V
 30 = 3,000 V

- FEATURES:**
- Hyper Fast Recovery: 40 nsec Maximum
 - PIV to 3 KV
 - Hermetically Sealed Axial and Surface Mount Package
 - Void-Free Ceramic Frit Glass Construction
 - High Temperature Category I Eutectic Metallurgical Bond
 - Excellent Thermal Shock Performance
 - For use in high voltage systems
 - 175°C Maximum Operating Temperature
 - TX, TXV, and Space Level Screening Available^{2/}
 - Available in Fast and Ultra Fast Versions. Contact Factory.

ELECTRICAL CHARACTERISTICS

Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (see note 8)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Resistance	
Symbol	PIV	I _O		I _R		V _F	I _{FSM}	t _{RR}	C _J	R _{θJE}	R _{θJL}
Units	Volts	A		μA		Volts	Amps	nsec	pF	°C/W	
Conditions		25°C	100°C	25°C	100°C	25°C	25°C	25°C	V _R = 100V f _T = 1MHZ		L = 1/8"
SRH20HF	2000	1.0	0.5	0.75	40	8.5	35	40	10	4	8
SRH25HF	2500	1.0	0.5	0.75	40	8.5	35	40	10	4	8
SRH30HF	3000	1.0	0.5	0.75	40	8.5	35	40	10	4	8

1/ For ordering information, price, and availability – Contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
 3/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
 4/ I_F = I_O; Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.
 5/ Max. Lead/End Tab temp. for soldering is 250°C, 3/8" from case for 5 sec maximum.
 6/ Operating and storage temperature: -65°C to +175°C.
 7/ Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=.25A, T_A=25°C.
 8/ Surge at 1 ms square pulse. 1 cycle.



**This device is a replacement for SSDI's SDH20HF through SDH30HF family of devices.
 This device offers superior performance in V_F & I_R.**

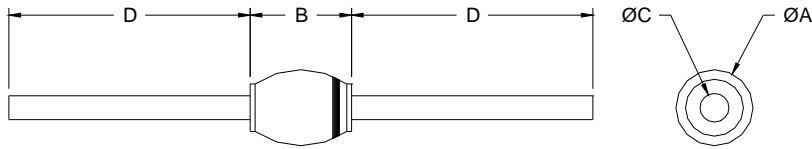


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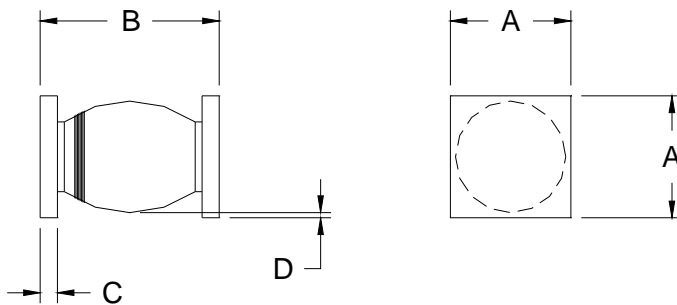
SRH20HF thru SRH30HF Series

PACKAGE OUTLINE: Axial



DIMENSIONS		
DIM	MIN	MAX
A	—	0.150"
B	0.200"	0.240"
C	0.048"	0.052"
D	1.00"	—

PACKAGE OUTLINE: Surface Mount Square Tab



DIMENSIONS		
DIM	MIN	MAX
A	0.170"	0.180"
B	0.250"	0.295"
C	0.020"	0.030"
D	0.002"	—

Notes:
Consult manufacturing for operating curves.

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

DATA SHEET #: RC0168A

DOC