



**Solid State Devices, Inc.**

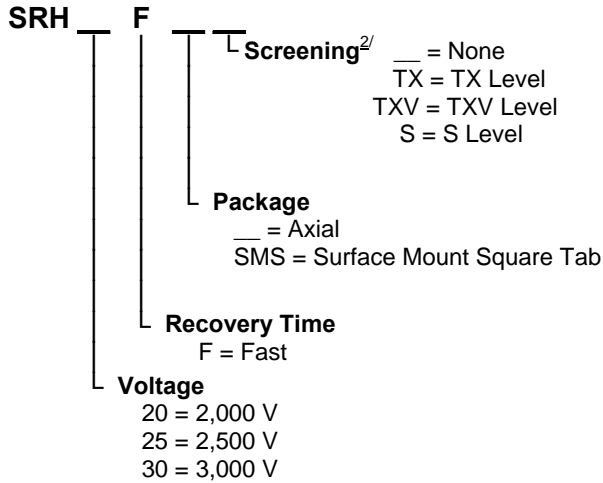
14701 Firestone Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-4474 \* Fax: (562) 404-1773  
 ssdi@ssdi-power.com \* www.ssdi-power.com

**SRH20F thru SRH30F Series**

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

**Designer's Data Sheet**

**Part Number / Ordering Information <sup>1/</sup>**



**FEATURES:**

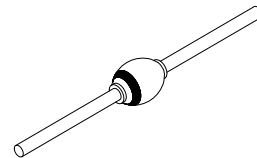
- Fast Recovery: 180 nsec Maximum
- PIV to 3 KV
- Hermetically Sealed Axial and Surface Mount Package
- Void-Free Ceramic Frit Glass Construction
- High Temperature Category I Eutectic Metallurgical Bond
- Excellent Thermal Shock Performance
- For use in high voltage systems
- 175°C Maximum Operating Temperature
- Smaller-sized Replacement for 1N6512 thru 1N6515 and 1N6520 thru 1N6523 in Many Applications
- TX, TXV, and Space Level Screening Available<sup>2/</sup>
- Available in Ultra Fast and Hyper Fast Versions. Contact Factory.

**ELECTRICAL CHARACTERISTICS**

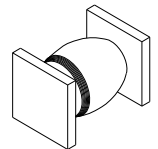
Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (see note 8)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Resistance	
		I <sub>O</sub>	I <sub>O</sub>	I <sub>R</sub>	I <sub>R</sub>					R <sub>θJE</sub>	R <sub>θJL</sub>
Symbol	PIV	I <sub>O</sub>		I <sub>R</sub>		V <sub>F</sub>	I <sub>FSM</sub>	t <sub>RR</sub>	C <sub>J</sub>	°C/W	
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 <sub>R</sub> = 100V f <sub>T</sub> = 1MHZ	
SRH20F	2000	1.5	1.0	0.5	10	6.0	60	180	10	4	8
SRH25F	2500	1.5	1.0	0.5	10	6.0	60	180	10	4	8
SRH30F	3000	1.5	1.0	0.5	10	6.0	60	180	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<sub>F</sub> = I<sub>O</sub>; 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<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=.25A, T<sub>A</sub>=25°C.  
 8/ Surge at 1 ms square pulse. 1 cycle.

**Axial**



**Surface Mount Square Tab**



**This device is a replacement for SSDI's SDH20F through SDH30F family of devices.  
 This device offers superior performance in V<sub>F</sub> & I<sub>R</sub>.**

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

**DATA SHEET #: RC0167A**

**DOC**

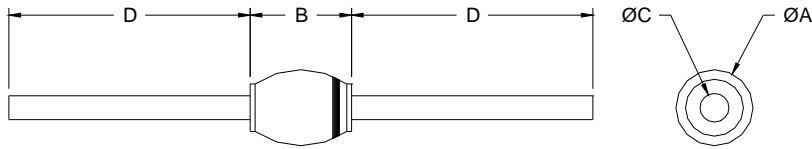


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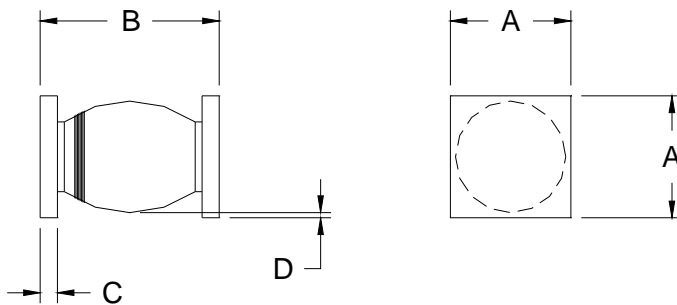
## SRH20F thru SRH30F Series

### 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.