Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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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 1/

SRH __ F __ __

- **Screening** 2/: __ = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Package**: __ = Axial, SMS = Surface Mount Square Tab
- **Recovery Time**: F = Fast
- **Voltage**: 20 = 2,000 V, 25 = 2,500 V, 30 = 3,000 V

FEATURES:

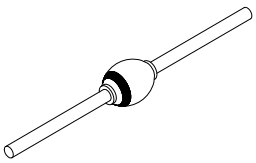
- **Fast Recovery: 180 nsec Maximum**
- **PIV to 3 KV**
- **Hermetically Sealed Axial and Surface Mount Package**
- **Void-Free Ceramic Frit Glass Construction**
- **High Temperature Category I Eutectic Metallurgical Bond**
- **Excellent Thermal Shock Performance**
- **For use in high voltage systems**
- **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** 2/
- **Available in Ultra Fast and Hyper Fast Versions. Contact Factory.**

ELECTRICAL CHARACTERISTICS

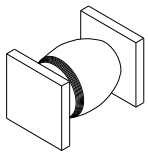
Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (see note 8)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Resistance	
Symbol	**PIV**	I_O		I_R		V_F	I_{FSM}	t_{RR}	C_J	$R_{\theta JE}$	$R_{\theta JL}$
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"**
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/ $I_F = I_O$; 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: IF=0.5A, IR=1.0A, IRR=.25A, TA=25°C.
8/ Surge at 1 ms square pulse. 1 cycle.

Axial



Surface Mount Square Tab



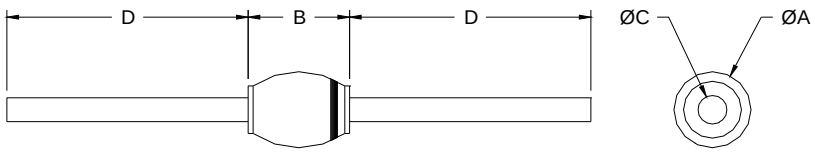
This device is a replacement for SSDI's SDH20F through SDH30F family of devices.
This device offers superior performance in V_F & I_R.

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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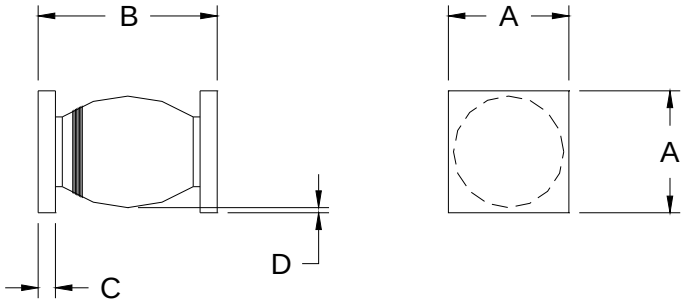
SRH20F thru SRH30F Series

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.