



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SDH HF — —

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

— L Package — = Axial
 SMS = Surface Mount Square

 Tab

— L Recovery Time
 HF = Hyper Fast

— L Voltage
 20 = 2000 V
 25 = 2500 V
 30 = 3000 V
 40 = 4000 V
 50 = 5000 V
 60 = 6000 V

SDH20HF & HFSMS thru SDH60HF & HFSMS

0.6-1 AMP 2000-6000 VOLTS HYPER FAST RECOVERY HIGH VOLTAGE RECTIFIER

FEATURES:

- Hyper Fast Recovery: 40 nsec Maximum
- PIV to 6000 Volts
- Hermetically Sealed Axial and Surface Mount Package
- Void-Free Construction
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- Replacement for 1N6512 thru 1N6518 and 1N6520 thru 1N6526 in Many Applications
- TX, TXV, and Space Level Screening Available^{2/}
- Available in 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 (1 Cycle)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance	
Symbol	PIV	I ₀		I _R		V _F	I _{FSM}	t _{RR}	C _J	θ _{JE}	θ _{JL}
Units		A		μA		Volts	Amps	nsec	pF	°C/W	
Conditions	Volts	25°C	100°C	25°C	100°C	25°C	25°C	25°C	V _R = 100V f _T = 1MHZ		L = 1/8"
SDH20HF	2000	1.0	0.5	1.0	50	8.2	40	40	10	4	8
SDH25HF	2500	1.0	0.5	1.0	50	8.2	40	40	10	4	8
SDH30HF	3000	1.0	0.5	1.0	50	8.2	40	40	10	4	8
SDH40HF	4000	0.6	0.3	1.0	50	12	30	40	8	4	8
SDH50HF	5000	0.6	0.3	1.0	50	12	30	40	8	4	8
SDH60HF	6000	0.6	0.3	1.0	50	12	30	40	8	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.

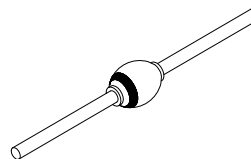
4/ I_F = I₀; Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.

5/ Max. Lead/End Tab temp. for soldering is 250°C, 3/8" from case for 5 sec maximum.

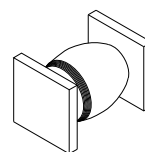
6/ Operating and storage temperature: -65°C to +175°C.

7/ Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A, T_A=25°C.

Axial



Surface Mount Square Tab



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

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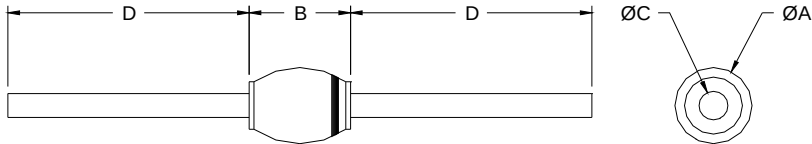


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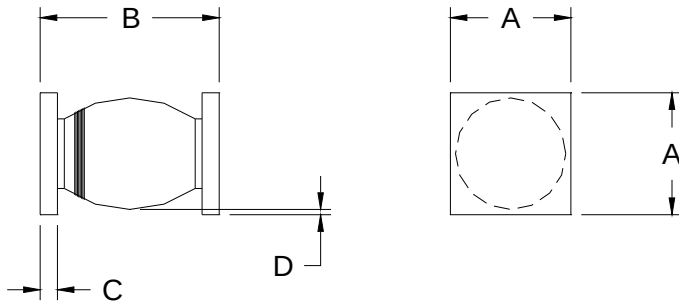
**SDH20HF & HFSMS
thru
SDH60HF & HFSMS**

PACKAGE OUTLINE: Axial



DIMENSIONS		
DIM	MIN	MAX
A	---	0.180"
B	.230"	.270"
C	0.047"	0.053"
D	1.00"	—

PACKAGE OUTLINE: Surface Mount Square Tab



DIMENSIONS		
DIM	MIN	MAX
A	0.195"	0.205"
B	0.280"	0.320"
C	0.020"	0.030"
D	0.002"	—

Notes:

Consult manufacturing for operating curves.

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