



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773  
 ssdi@ssdi-power.com \* www.ssdi-power.com

**SDH20UF & UFSMS  
 thru  
 SDH60UF & UFSMS**

**Designer's Data Sheet**

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

SDH \_\_\_ UF \_\_\_

L Screening<sup>2/</sup> = None  
 TX = TX Level  
 TXV = TXV Level  
 S = S Level

L Package  
 \_\_\_ = Axial  
 SMS = Surface Mount Square Tab

L Recovery Time  
 UF = Ultra Fast

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

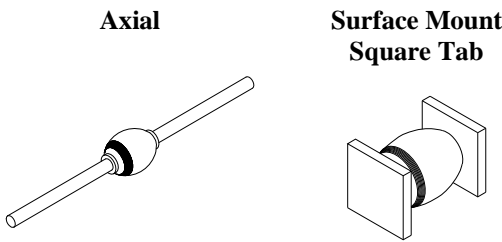
**1-1.5 AMP  
 2000-6000 VOLTS  
 ULTRA FAST RECOVERY  
 HIGH VOLTAGE  
 RECTIFIER**

- FEATURES:**
- Ultra Fast Recovery: 90 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<sup>2/</sup>
  - 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	
		I <sub>0</sub>	I <sub>0</sub>	IR	IR					θ <sub>JE</sub>	θ <sub>JL</sub>
Symbol	PIV	I <sub>0</sub>		IR		V <sub>F</sub>	I <sub>FSM</sub>	t <sub>RR</sub>	C <sub>J</sub>	θ <sub>JE</sub>	θ <sub>JL</sub>
Units		mA		µA		Volts	Amps	nsec	pF	°C/W	
Conditions	Volts	25°C	100°C	25°C	100°C	25°C	25°C	25°C	VR = 100V fT = 1MHZ		L = 1/8"
SDH20UF	2000	1.5	1.0	1.0	25	7.5	60	90	10	4	8
SDH25UF	2500	1.5	1.0	1.0	25	7.5	60	90	10	4	8
SDH30UF	3000	1.5	1.0	1.0	25	7.5	60	90	10	4	8
SDH40UF	4000	1.0	0.5	1.0	25	10.5	40	90	8	4	8
SDH50UF	5000	1.0	0.5	1.0	25	10.5	40	90	8	4	8
SDH60UF	6000	1.0	0.5	1.0	25	10.5	40	90	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<sub>F</sub> = I<sub>0</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: IF=0.5A, IR=1.0A, IRR=.25A, TA=25°C.



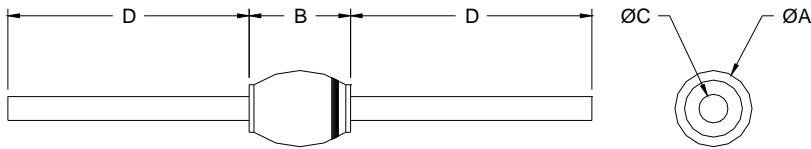


**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773  
 ssdi@ssdi-power.com \* www.ssdi-power.com

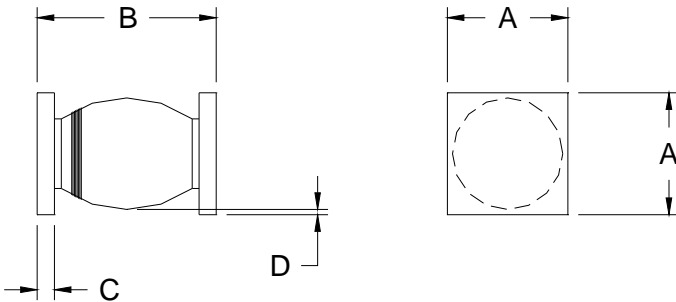
**SDH20UF & UFSMS  
 thru  
 SDH60UF & UFSMS**

**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.