Solid State Devices, Inc.
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SDH20UF & UFSMS thru SDH60UF & UFSMS

Designer's Data Sheet

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

Part Number / Ordering Information [1/]

SDH __ UF __ __

- **Screening**[2/] = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Package** ___ = Axial, SMS = Surface Mount Square Tab
- **Recovery Time** UF = Ultra Fast
- **Voltage** 20 = 2000 V, 25 = 2500 V, 30 = 3000 V, 40 = 4000 V, 50 = 5000 V, 60 = 6000 V

FEATURES:

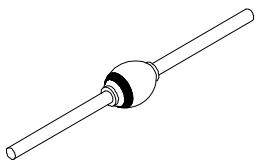
- **Ultra Fast Recovery: 90 nsec Maximum**
- **PIV to 6000 Volts**
- **Hermetically Sealed Axial and Surface Mount Package**
- **Void-Free Construction**
- **Metallurgically Bonded**
- **175°C Maximum Operating Temperature**
- **Replacement for 1N6512 thru 1N6518 and 1N6520 thru 1N6526 in Many Applications**
- **TX, TXV, and Space Level Screening Available**[2/]
- **Available in Fast and Hyper Fast Versions. Contact Factory.**

ELECTRICAL CHARACTERISTICS

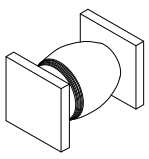
Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (1 Cycle)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance	
Symbol	PIV	I_0		IR		V_F	I_{FSM}	t_{RR}	C_J	θ_{JE}	θ_{JL}
Units	Volts	A		µA		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"
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/ $I_F = I_O$; 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.

Axial



Surface Mount Square Tab

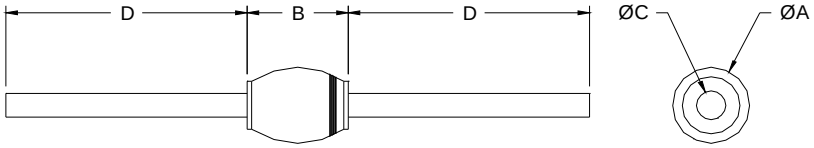


NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RC0059E	DOC

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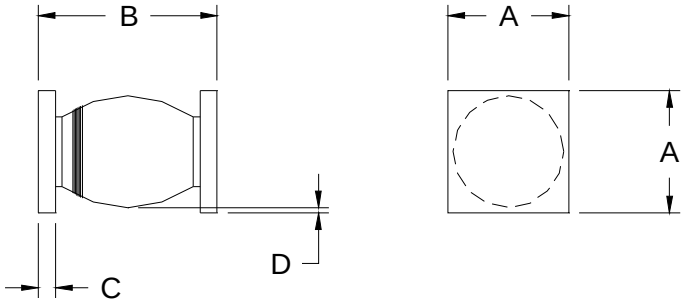
SDH20UF & UFSMS thru SDH60UF & UFSMS

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.