



**SOLID STATE DEVICES, INC.**

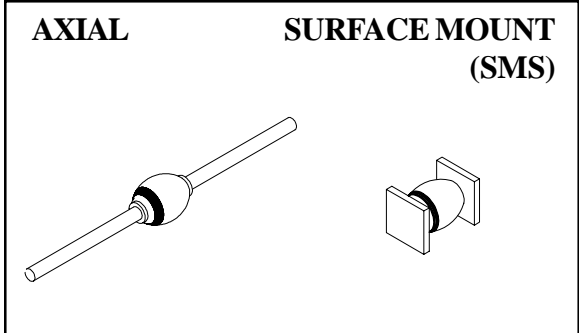
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**SDH20UF & UFSMS  
 thru  
 SDH60UF & UFSMS**

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

**Designer's Data Sheet**

- 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
  - Available in Fast and Hyper Fast versions. Contact Factory.



www.DataSheet.in

**ELECTRICAL CHARACTERISTICS**

Part Number	Peak Inverse Voltage	Average Rectified Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (1 Cycle)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance	
		$I_0$		$I_R$ @ PIV						$\theta_{JE}$	$\theta_{JL}$
Symbol	PIV	$I_0$		$I_R$ @ PIV		$V_F$ <sup>2/</sup>	$I_{FSM}$	$t_{RR}$ <sup>5/</sup>	$C_J$	$^{\circ}C/W$	
Units	Volts	A		$\mu A$		Volts	Amps	nsec	pF	$^{\circ}C/W$	
Conditions		25°C	100°C	25°C	100°C	25°C	25°C	25°C	$V_R = 100V$ $f_r = 1MHZ$		L=1/8"
<b>SDH20UF</b>	2000	1.5	1.0	1.0	25	7.5	60	90	10	4	8
<b>SDH25UF</b>	2500	1.5	1.0	1.0	25	7.5	60	90	10	4	8
<b>SDH30UF</b>	3000	1.5	1.0	1.0	25	7.5	60	90	10	4	8
<b>SDH40UF</b>	4000	1.0	0.5	1.0	25	10.5	40	90	8	4	8
<b>SDH50UF</b>	5000	1.0	0.5	1.0	25	10.5	40	90	8	4	8
<b>SDH60UF</b>	6000	1.0	0.5	1.0	25	10.5	40	90	8	4	8

**NOTES:**

1. Operating and testing over 10,000 V/inch may require encapsulation or immersion in suitable dielectric material.
2.  $I_F = I_0$ ; Maximum forward voltage measured with instantaneous forward pulse of 300 $\mu$ sec minimum.
3. Maximum lead/end tab temperature for soldering is 250°C, 3/8" from case for 5 sec maximum.
4. Operating and Storage temperature: -65 to +175°C.
5. Reverse Recovery Test Conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ ,  $T_A = 25^{\circ}C$ .

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

**DATA SHEET # : RC0059C**

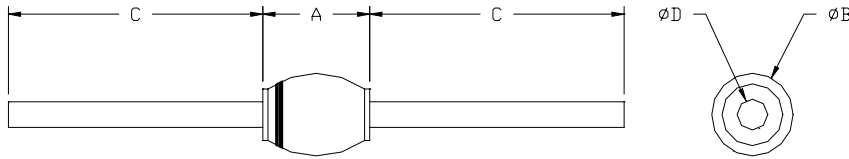
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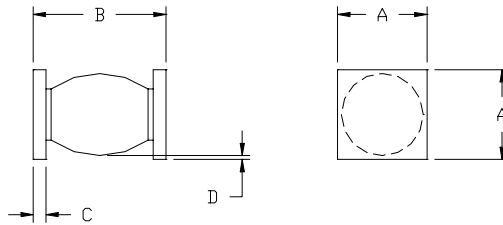
**PACKAGE OUTLINE: AXIAL RECTIFIER**



**DIMENSIONS**

DIM	MIN.	MAX.
A	0.230"	0.270"
B	--	0.180"
C	1.00"	--
D	0.047"	0.053"

**CASE OUTLINE: SURFACE MOUNT SQUARE TAB (SMS)**



**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.