



PRELIMINARY

**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

**Designer's Data Sheet**

**SUM20UF & UFSMS  
thru  
SUM50UF & UFSMS**

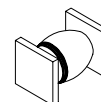
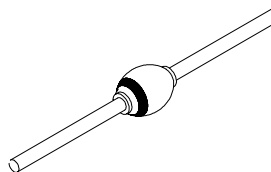
**0.4 AMPS  
2000 - 5000 VOLTS  
60 nsec  
HIGH VOLTAGE  
ULTRA FAST RECTIFIER**

**FEATURES:**

- Ultra Fast Recovery: 60 nsec Maximum
- PIV to 5000 Volts
- Hermetically Sealed Axial and Surface Mount Package
- Void-Free Construction
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- TX, TXV, and Space Level Screening Available

AXIAL

SURFACE MOUNT  
SQUARE TAB



**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
Symbol	PIV	I <sub>O</sub>		I <sub>R</sub>		V <sub>F</sub>	I <sub>FSM</sub>	t <sub>RR</sub>	C <sub>J</sub>	θ <sub>JL</sub> /θ <sub>JE</sub>
Units	Volts	mA		μA		Volts	Amps	nsec	pF	°C/W
Conditions		25°C	100°C	25°C	100°C	25°C	25°C	25°C	V <sub>R</sub> = 100V f <sub>r</sub> = 1MHZ	L = 3/8"
<b>SUM20UF</b>	2000	400	250	1.0	15	10	25	60	10	16
<b>SUM25UF</b>	2500	400	250	1.0	15	10	25	60	10	16
<b>SUM30UF</b>	3000	400	250	1.0	15	13	25	60	10	16
<b>SUM35UF</b>	3500	400	250	1.0	15	13	25	60	10	16
<b>SUM40UF</b>	4000	400	250	1.0	15	13	25	60	10	16
<b>SUM50UF</b>	5000	400	250	1.0	15	13	25	60	10	16

**NOTES:**

1. Operating and testing over 10,000 V/inch may require encapsulation or immersion in suitable dielectric material.
2. Maximum forward voltage measured with instantaneous forward pulse of 300μsec 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<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A, T<sub>A</sub> = 25°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 # : RC0040A**

**SUM20UF & UFSMS  
thru  
SUM50UF & UFSMS**

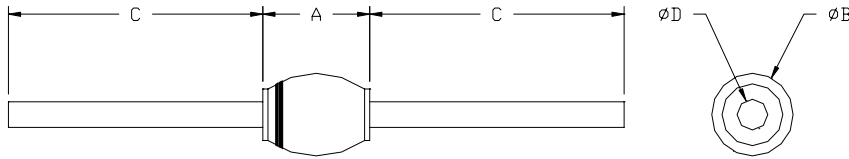
PRELIMINARY



**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

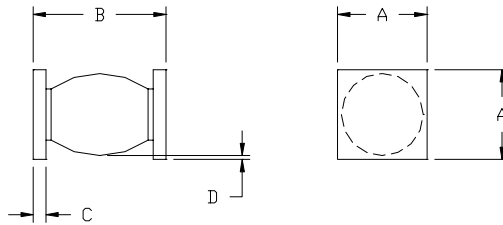
**PACKAGE OUTLINE: AXIAL RECTIFIER**



**DIMENSIONS**

DIM	MIN.	MAX.
A	--	.300"
B	.065"	.165"
C	1.00"	--
D	.047"	.053"

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



**DIMENSIONS**

DIM	MIN.	MAX.
A	170	.180"
B	.285"	.325"
C	.020"	.030"
D	.002"	--

**NOTES:**

Consult manufacturing for operating curves.