



PRELIMINARY

SOLID STATE DEVICES, INC.

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

**SUM20F & FSMS
thru
SUM50F & FSMS**

**0.5 AMPS
2000 - 5000 VOLTS
180 nsec
HIGH VOLTAGE
RECTIFIER**

Designer's Data Sheet

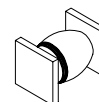
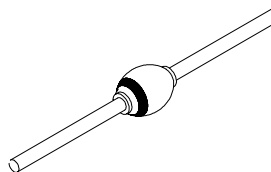
FEATURES:

- **Fast Recovery: 180 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 _O		I _R		V _F	I _{FSM}	t _{RR}	C _J	θ _{JL} /θ _{JE}
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 _R = 100V f _r = 1MHZ	L = 3/8"
SUM20F	2000	500	300	1.0	15	8	25	180	10	16
SUM25F	2500	500	300	1.0	15	8	25	180	10	16
SUM30F	3000	500	300	1.0	15	11	25	180	10	16
SUM35F	3500	500	300	1.0	15	11	25	180	10	16
SUM40F	4000	500	300	1.0	15	11	25	180	10	16
SUM50F	5000	500	300	1.0	15	11	25	180	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_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A, T_A = 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 # : RC0038A

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thru
SUM50F & FSMS**

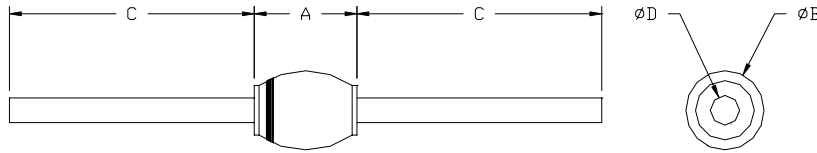
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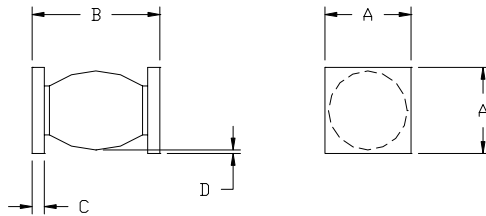
PACKAGE OUTLINE: AXIAL RECTIFIER



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.