

**Solid State Devices, Inc.**

14701 Firestone Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

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Designer's Data Sheet**Part Number / Ordering Information**^{1/}**SAM**

Screening^{2/} = None
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package

= Axial
 SMS = Surface Mount Square Tab

Recovery Time

F = Fast Recovery
 UF = Ultra Fast Recovery

Voltage

50 = 5000 80 = 8000
 60 = 6000 90 = 9000
 70 = 7000

SAM50F thru SAM90F and SAM50UF thru SAM90UF

**0.5 Amp
5000-9000 VOLTS
60-150 nsec
HIGH VOLTAGE
RECTIFIER**

FEATURES:

- Fast Recovery: 60-150 nsec Maximum
- PIV to 9000 Volts
- Hermetically Sealed
- Void-Free Construction
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- TX, TXV, and Space Level Screening Available^{2/}

ELECTRICAL CHARACTERISTICS (at 25°C unless otherwise specified)

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 Resistance	
Symbol	PIV	I _O		I _R		V _F	I _{FSM}	t _{RR}	C _J	R _{θJL}	R _{θJE}
Units	V	mA		μA		V	A	nsec	pF	°C/W	°C/W
Conditions		25°C	100°C	@ PIV 25°C	@ PIV 100°C	@ I _O		I _F = .5 A I _R = 1 A I _{RR} = .25 A	V _R = 100 V f _T = 1 MHZ	L=3/8"	L=0"
SAM50F	5000	500	300	1.0	15	13	25	150	10	21	12
SAM60F	6000	500	300	1.0	15	13	25	150	10	21	12
SAM70F	7000	500	300	1.0	15	13	25	150	10	21	12
SAM80F	8000	500	300	1.0	15	13	25	150	10	21	12
SAM90F	9000	500	300	1.0	15	13	25	150	10	21	12
SAM50UF	5000	400	250	1.0	15	15	25	60	10	21	12
SAM60UF	6000	400	250	1.0	15	15	25	60	10	21	12
SAM70UF	7000	400	250	1.0	15	15	25	60	10	21	12
SAM80UF	8000	400	250	1.0	15	15	25	60	10	21	12
SAM90UF	9000	400	250	1.0	15	15	25	60	10	21	12

1/ For Ordering Information, Price, and Availability – Contact Factory.

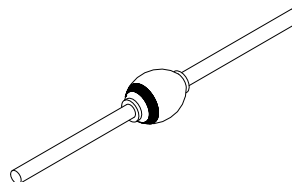
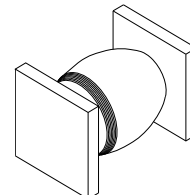
2/ Screening based on MIL-PRF-19500. Screening flows available on request.

3/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.

4/ Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.

5/ Max. end tab temp. for soldering is 250°C for 5 sec maximum.

6/ Operating and storage temperature: -65°C to +175°C.

Axial**SMS**

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

DATA SHEET #: RV0031F**DOC**



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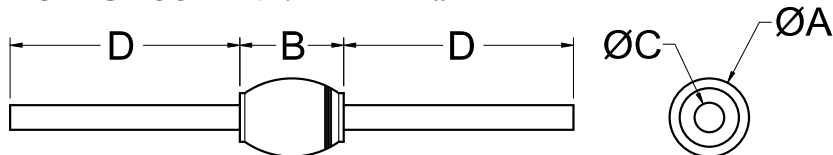
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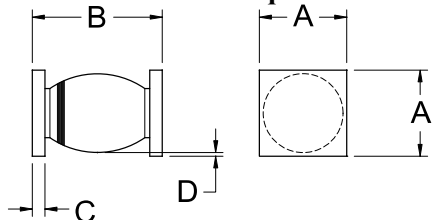
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PACKAGE OUTLINE:

Axial



Surface Mount Square Tab

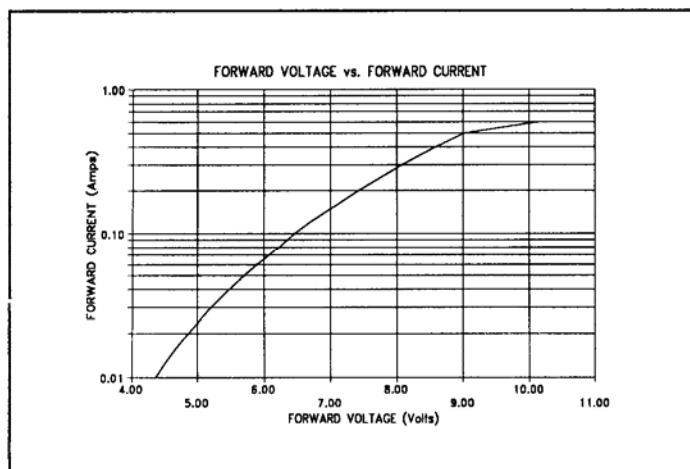
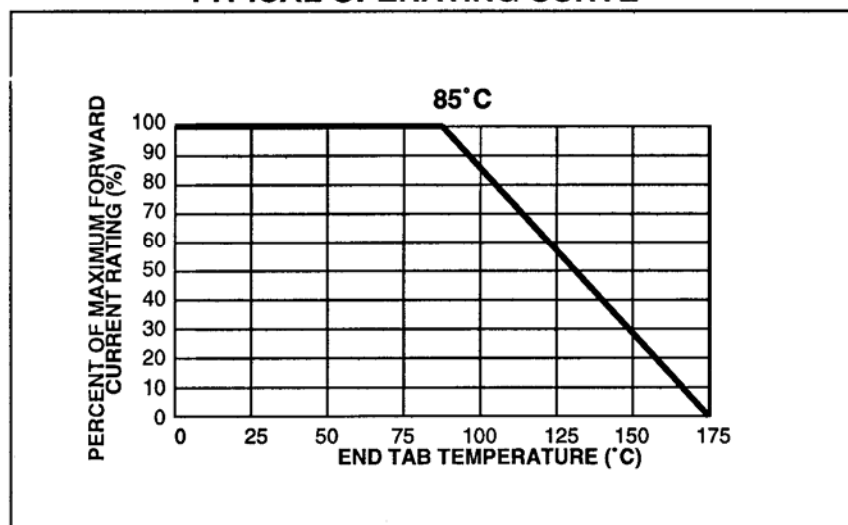


**SAM50F thru SAM90F
and
SAM50UF thru SAM90UF**

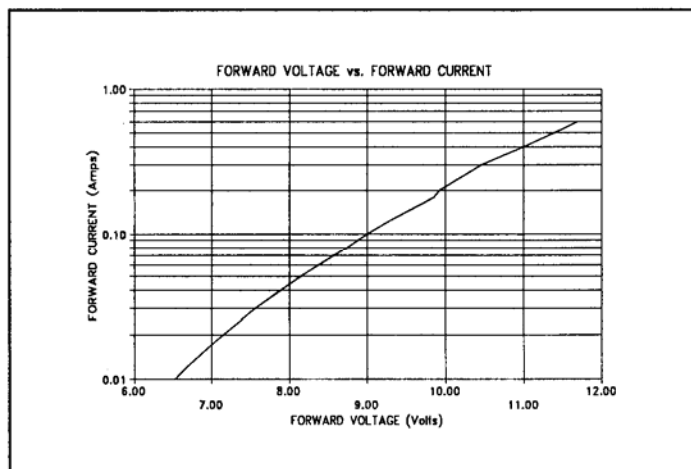
DIMENSIONS		
DIM	MIN	MAX
A	---	.300"
B	---	.425"
C	.047"	.063"
D	.400"	---

DIMENSIONS		
DIM	MIN	MAX
A	.195"	.205"
B	.330"	.410"
C	.020"	.035"
D	.002"	---

TYPICAL OPERATING CURVE



SAM50F-SAM90F



SAM50UF-SAM90UF

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