



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SAM **F** **—** **—**

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

└ **Package**
 — = Axial Leaded
 SMS = Surface Mount Square Tab

└ **Recovery Time**
 F = Fast Recovery

└ **Voltage**
 15 = 1500
 20 = 2000
 25 = 2500
 30 = 3000
 35 = 3500
 40 = 4000

SAM15F – SAM40F and SAM15FSMS – SAM40FSMS

1.5 Amp
1500 – 4000 VOLTS
150 nsec
HIGH VOLTAGE
RECTIFIER

FEATURES:

- Fast Recovery: 150 nsec Maximum
- PIV to 4000 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	A	A	μA		V	A	ns	pF	°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	R _{θJL} : L=3/8" R _{θJE} : L=0"
SAM15F	1500	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM20F	2000	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM25F	2500	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM30F	3000	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM35F	3500	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM40F	4000	1.5	1.2	1.0	25	6.5	60	150	15	12
SAM15FSMS	1500	1.5	1.25	1.0	25	6.5	60	150	15	6
SAM20FSMS	2000	1.5	1.25	1.0	25	6.5	60	150	15	6
SAM25FSMS	2500	1.5	1.25	1.0	25	6.5	60	150	15	6
SAM30FSMS	3000	1.5	1.25	1.0	25	6.5	60	150	15	6
SAM35FSMS	3500	1.5	1.25	1.0	25	6.5	60	150	15	6
SAM40FSMS	4000	1.5	1.25	1.0	25	6.5	60	150	15	6

^{1/} For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.

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

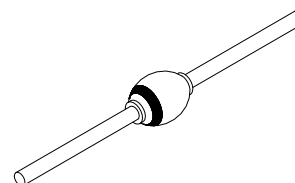
^{3/} Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.

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

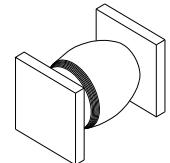
^{5/} Max. end tab temp. for soldering is 250°C for 5 sec maximum.

^{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.

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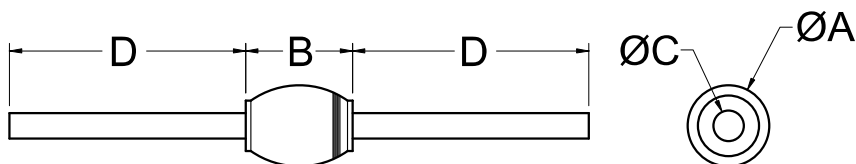
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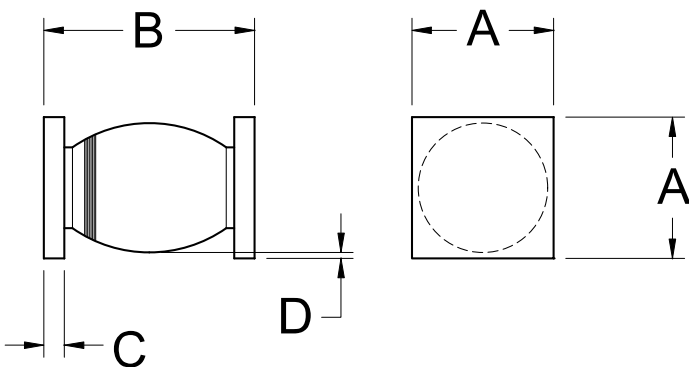
**SAM15F – SAM40F
and
SAM15FSMS – SAM40FSMS**

PACKAGE OUTLINE: Axial



DIMENSIONS		
DIM	MIN	MAX
A	---	.300"
B	---	.320"
C	.055"	.063"
D	.400"	---

PACKAGE OUTLINE: Surface Mount Square Tab



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

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