



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SAM	UF		
		Screening ^{2/}	= None TX = TX Level TXV = TXV Level S = S Level
		Package	= Axial Leaded SMS = Surface Mount Square Tab
		Recovery Time	UF = Ultra Fast
		Voltage	15 = 1500 20 = 2000 25 = 2500 30 = 3000 35 = 3500 40 = 4000

SAM15UF – SAM40UF and SAM15UFSMS – SAM40UFSMS

**1 Amp
1500 – 4000 VOLTS
60 nsec
HIGH VOLTAGE
RECTIFIER**

FEATURES:

- Fast Recovery: 60 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	mA	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 ₁ = 1 MHZ	R _{θJL} : L=3/8" R _{θJE} : L=0"
SAM15UF	1500	1	750	1.0	25	7.5	60	60	15	12
SAM20UF	2000	1	750	1.0	25	7.5	60	60	15	12
SAM25UF	2500	1	750	1.0	25	7.5	60	60	15	12
SAM30UF	3000	1	750	1.0	25	7.5	60	60	15	12
SAM35UF	3500	1	750	1.0	25	7.5	60	60	15	12
SAM40UF	4000	1	750	1.0	25	7.5	60	60	15	12
SAM15UFSMS	1500	1	800	1.0	25	7.5	60	60	15	6
SAM20UFSMS	2000	1	800	1.0	25	7.5	60	60	15	6
SAM25UFSMS	2500	1	800	1.0	25	7.5	60	60	15	6
SAM30UFSMS	3000	1	800	1.0	25	7.5	60	60	15	6
SAM35UFSMS	3500	1	800	1.0	25	7.5	60	60	15	6
SAM40UFSMS	4000	1	800	1.0	25	7.5	60	60	15	6

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

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

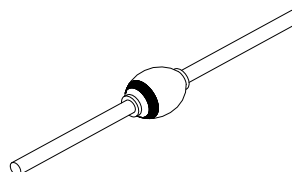
3/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.

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

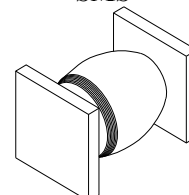
5/ Max. end tab temp. for soldering is 250°C for 5 sec maximum.

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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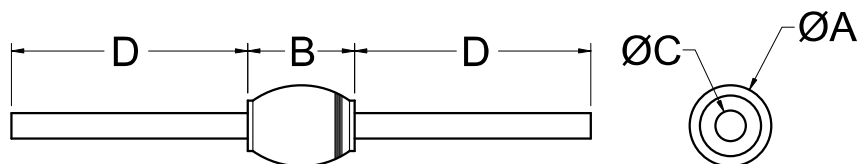


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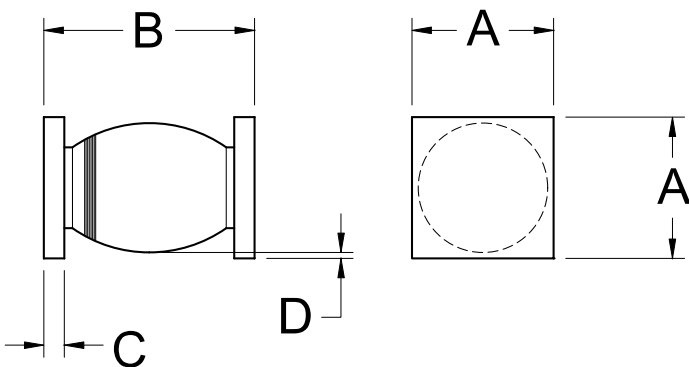
**SAM15UF – SAM40UF
 and
 SAM15UFSMS – SAM40UFSMS**

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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