



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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**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/}

Designer's Data Sheet

Part Number / Ordering Information^{1/}

SAM ___ UF ___

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

 L Package
 ___ = Axial Leaded
 SMS = Surface Mount Square Tab

 L Recovery Time
 UF = Ultra Fast

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

ELECTRICAL CHARACTERISTICS

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 Impedance
		I ₀	I ₀	IR @ PIV	IR @ PIV					
Symbol	PIV	I ₀		IR @ PIV		V _F	I _{FSM}	t _{RR}	C _J	θ _{JL} , θ _{JE}
Units	Volts	A	mA	µA		Volts	Amps	µsec	pF	°C/W L = 3/8"
Conditions		25°C	100°C	25°C	100°C	25°C	25°C	25°C	VR = 100V fT = 1MHZ	
SAM15UF	1500	1	750	1.0	25	7.5	60	60	15	13
SAM20UF	2000	1	750	1.0	25	7.5	60	60	15	13
SAM25UF	2500	1	750	1.0	25	7.5	60	60	15	13
SAM30UF	3000	1	750	1.0	25	7.5	60	60	15	13
SAM35UF	3500	1	750	1.0	25	7.5	60	60	15	13
SAM40UF	4000	1	750	1.0	25	7.5	60	60	15	13
SAM15UFSMS	1500	1	800	1.0	25	7.5	60	60	15	12
SAM20UFSMS	2000	1	800	1.0	25	7.5	60	60	15	12
SAM25UFSMS	2500	1	800	1.0	25	7.5	60	60	15	12
SAM30UFSMS	3000	1	800	1.0	25	7.5	60	60	15	12
SAM35UFSMS	3500	1	800	1.0	25	7.5	60	60	15	12
SAM40UFSMS	4000	1	800	1.0	25	7.5	60	60	15	12

^{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.

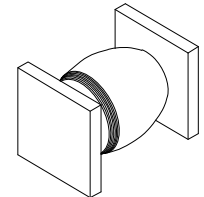
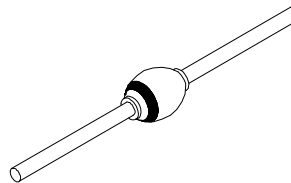
^{5/} Max. end tab temp. for soldering is 250°C for 5 sec maximum.

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

^{7/} Reverse Recovery Test Conditions: IF=.5mA, IR=100mA, IRR=25mA, TA=25°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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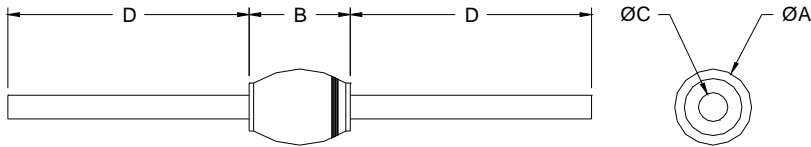


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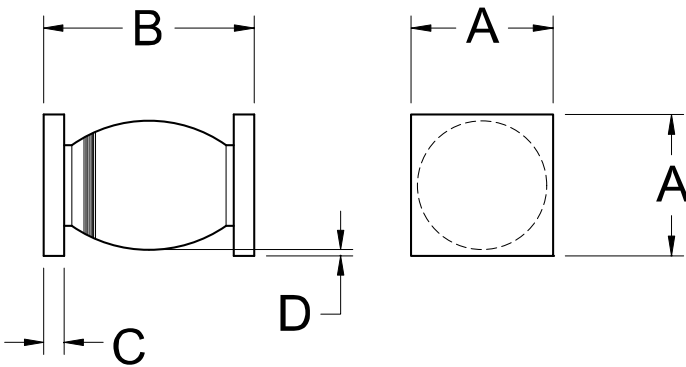
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 and
 SAM15UFSMS - SAM40UFSMS**

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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