Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
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SAM15 – SAM40 and SAM15SMS – SAM40SMS

Designer's Data Sheet

Part Number / Ordering Information [1/]

SAM __ __ __

- **Screening** [2/] = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Package** ___ = Axial Leaded, SMS = Surface Mount Square Tab
- **Voltage** 15 = 1500, 20 = 2000, 25 = 2500, 30 = 3000, 35 = 3500, 40 = 4000

2 Amp 1500 – 4000 VOLTS 5 µsec HIGH VOLTAGE RECTIFIER

FEATURES:

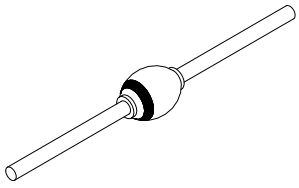
- **Standard Recovery: 5 µsec Maximum**
- **PIV to 4000 Volts**
- **Hermetically Sealed**
- **Void-Free Construction**
- **Metallurgically Bonded**
- **175°C Maximum Operating Temperature**
- **TX, TXV, and Space Level Screening Available** [2/]

ELECTRICAL CHARACTERISTICS (at 25°C unless otherwise specified)

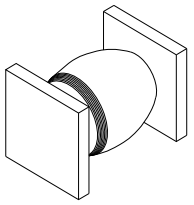
Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (1 Cycle)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Resistance
Symbol	PIV	I_O		I_R		V_F	I_{FSM}	t_{RR}	C_J	$R_{\theta JL}$ / $R_{\theta JE}$
Units	V	A	A	µA		V	A	µs	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	$R_{\theta JL}$: L=3/8", $R_{\theta JE}$: L=0"
SAM15	1500	2	1.5	1.0	25	5.5	60	5	15	12
SAM20	2000	2	1.5	1.0	25	5.5	60	5	15	12
SAM25	2500	2	1.5	1.0	25	5.5	60	5	15	12
SAM30	3000	2	1.5	1.0	25	5.5	60	5	15	12
SAM35	3500	2	1.5	1.0	25	5.5	60	5	15	12
SAM40	4000	2	1.5	1.0	25	5.5	60	5	15	12
SAM15SMS	1500	2	1.7	1.0	25	5.5	60	5	15	6
SAM20SMS	2000	2	1.7	1.0	25	5.5	60	5	15	6
SAM25SMS	2500	2	1.7	1.0	25	5.5	60	5	15	6
SAM30SMS	3000	2	1.7	1.0	25	5.5	60	5	15	6
SAM35SMS	3500	2	1.7	1.0	25	5.5	60	5	15	6
SAM40SMS	4000	2	1.7	1.0	25	5.5	60	5	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

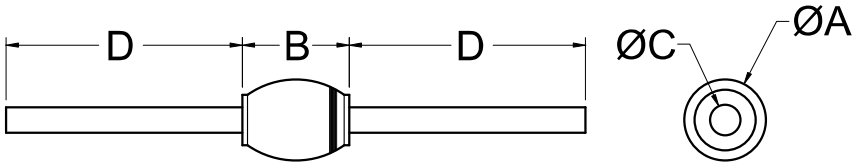


NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RV0019C	DOC

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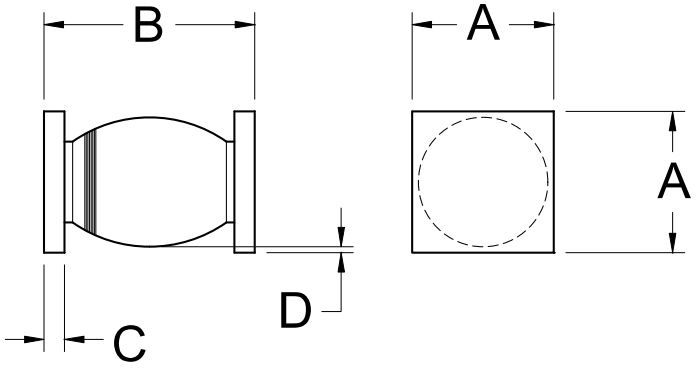
SAM15 – SAM40
and
SAM15SMS – SAM40SMS

PACKAGE OUTLINE: Axial



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

PACKAGE OUTLINE: Surface Mount Square Tab



Dimensions prior to solder dipping

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