



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/}

SHM _ UF _ _

L Screening^{2/} = None

TX = TX Level

TXV = TXV Level

S = S Level

Package

_ = Axial

SMS = Surface Mount Square Tab

Recovery Time

UF = Ultra Fast

Voltage

15 = 1500

20 = 2000

25 = 2500

30 = 3000

40 = 4000

50 = 5000

60 = 6000

80 = 8000

100 = 10000

120 = 12000

140 = 14000

SHM15UF - SHM140UF

and

SHM15UFSMS - SHM140UFSMS

50-250 mA
1500 – 14000 VOLTS
60-100 nsec
HIGH VOLTAGE
RECTIFIER

FEATURES:

- Ultra Fast Recovery: 60-100 nsec Maximum
- PIV to 14000 Volts
- Hermetically Sealed
- Void-Free Construction
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- TX, TXV, and Space Level Screening Available^{2/}

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	
Symbol	PIV	I ₀			IR @ PIV		V _F	I _{FSM}	trr	C _J	θ _{JE}	θ _{JL}
Units	Volts	mA			μA		Volts	Amps	nsec	pF	L = 3/8” °C/W	
Conditions		25°C	100°C		25°C	100°C	25°C	25°C	25°C	V _R = 100V f _T = 1MHZ		
SHM15UF	1500	250	150	145	1.0	25	10	15	60	8	55	65
SHM20UF	2000	250	150	145	1.0	25	10	15	60	8	55	65
SHM25UF	2500	250	150	145	1.0	25	10	15	60	8	55	65
SHM30UF	3000	150	90		1.0	25	14	10	60	4	55	65
SHM40UF	4000	150	90		1.0	25	14	10	60	4	55	65
SHM50UF	5000	150	90		1.0	25	14	10	60	4	55	65
SHM60UF	6000	100	60		1.0	25	20	5	60	2	55	65
SHM80UF	8000	100	60		1.0	25	20	5	60	2	55	65
SHM100UF	10000	100	60		1.0	25	20	5	60	2	55	65
SHM120UF	12000	100	60		1.0	25	22	5	60	2	55	65
SHM140UF	14000	50	30		1.0	25	26	1	100	2	85	95

^{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.

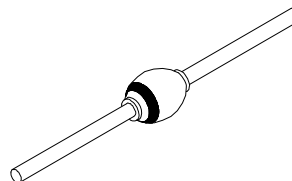
^{4/} Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.

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

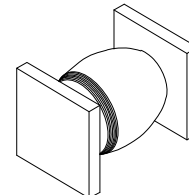
^{6/} Operating and storage temperature: -65°C to +175°C.

^{7/} Reverse Recovery Test Conditions: IF=50mA, IR=100mA, IRR=25mA, TA=25°C.

Axial Leaded



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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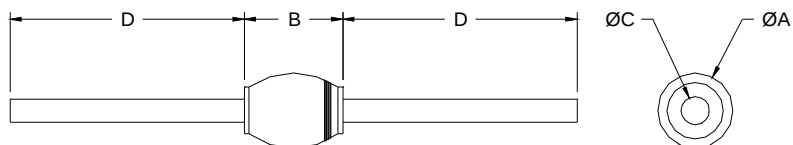


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**SHM15UF - SHM140UF
 and
 SHM15UFSMS - SHM140UFSMS**

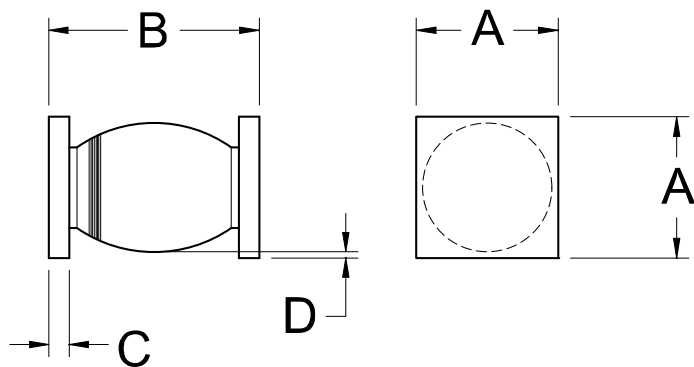
Case Outline: (Axial)



DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	---	.140"
B	---	.300"
C	.025"	.033"
D	1.0"	---

DIMENSIONS: SHM60-140		
DIM	MIN	MAX
A	---	.140"
B	---	.400"
C	.025"	.033"
D	1.0"	---

PACKAGE OUTLINE: Surface Mount Square Tab



DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	.127"	.140"
B	.280"	.320"
C	.022"	.028"
D	.002"	---

DIMENSIONS: SHM60-140		
DIM	MIN	MAX
A	.127"	.140"
B	.360"	.450"
C	.022"	.028"
D	.002"	---

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