



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-4474 \* Fax: (562) 404-1773  
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**SHM15UF - SHM140UF  
 and  
 SHM15UFSMS - SHM140UFSMS**

**Designer's Data Sheet**

**Part Number / Ordering Information**<sup>1/</sup>

SHM \_\_\_ UF \_\_\_

- Screening<sup>2/</sup> = 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	60 = 6000
20 = 2000	80 = 8000
25 = 2500	100 = 10000
30 = 3000	120 = 12000
40 = 4000	140 = 14000
50 = 5000	

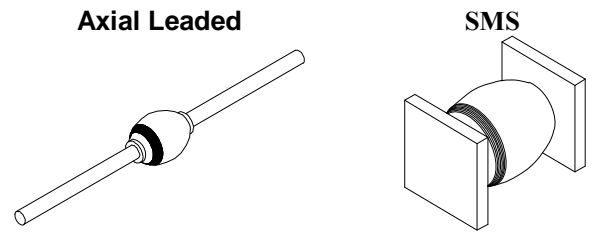
**50-250 mA  
 1500 – 14000 VOLTS  
 60-100 nsec  
 HIGH VOLTAGE  
 RECTIFIER**

- 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<sup>2/</sup>

**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 <sub>0</sub>		IR @ PIV		V <sub>F</sub>	I <sub>FSM</sub>	trr	C <sub>J</sub>	θ <sub>JE</sub>	θ <sub>JL</sub>	
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 <sub>R</sub> = 100V f <sub>T</sub> = 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.



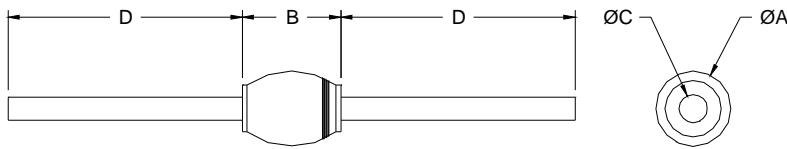


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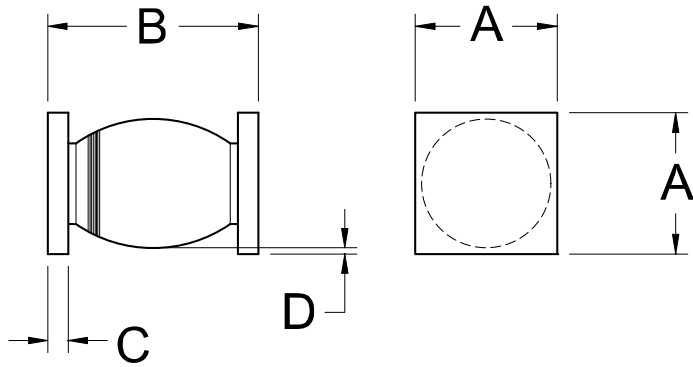
**Case Outline: (Axial)**



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"	---

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

**DATA SHEET #: RV0015C**

**DOC**