



PRELIMINARY

SOLID STATE DEVICES, INC

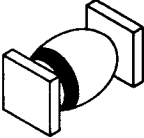
14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

# SHM15UFSMS thru SHM140UFSMS

## Designer's Data Sheet

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

**SURFACE MOUNT  
SQUARE TAB**



**FEATURES:**

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

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### ELECTRICAL CHARACTERISTICS

Part Number	Peak Inverse Voltage	Average Rectified Current		Maximum Reverse Current @ PIV		Maximum Forward Voltage @ 55°C IO	Maximum Surge Current 1 Cycle	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance
SYMBOL	PIV	IO		IR		VF	IFSM	trr	CJ, fT=	θJE
UNITS	Volts	25°C mA	100°C mA	25°C μA	100°C μA	25°C Volts	25°C Amps	25°C nsec	@ 100 Volts pf	°C/W
SHM15UFSMS	1500	250	150	1.0	25	10	15	60	8	55
SHM20UFSMS	2000	250	150	1.0	25	10	15	60	8	55
SHM25UFSMS	2500	250	150	1.0	25	10	15	60	8	55
SHM30UFSMS	3000	150	90	1.0	25	14	10	60	4	55
SHM40UFSMS	4000	150	90	1.0	25	14	10	60	4	55
SHM50UFSMS	5000	150	90	1.0	25	14	10	60	4	55
SHM60UFSMS	6000	100	60	1.0	25	20	5	60	2	55
SHM80UFSMS	8000	100	60	1.0	25	20	5	60	2	55
SHM100UFSMS	10000	100	60	1.0	25	20	5	60	2	55
SHM120UFSMS	12000	100	60	1.0	25	22	5	60	2	55
SHM140UFSMS	14000	50	30	1.0	25	26	1	100	2	85

- NOTES:**
- Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
  - Max. forward voltage measured with instantaneous forward pulse of 300usec minimum.
  - Max. end tab temp. for soldering is 250°C, 3/8" from the case for 5 sec maximum.
  - Operating and storage temperature: -65°C to +175°C
  - Reverse Recovery Test Conditions: IF=50mA, IR=100mA, IRR=25mA, TA=25°C

# SHM15UFSMS thru SHM140UFSMS

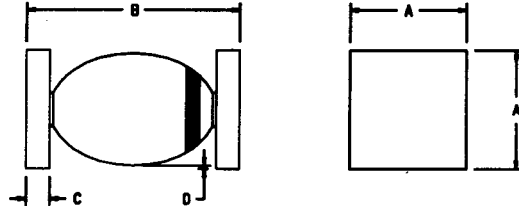
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PACKAGE OUTLINE:

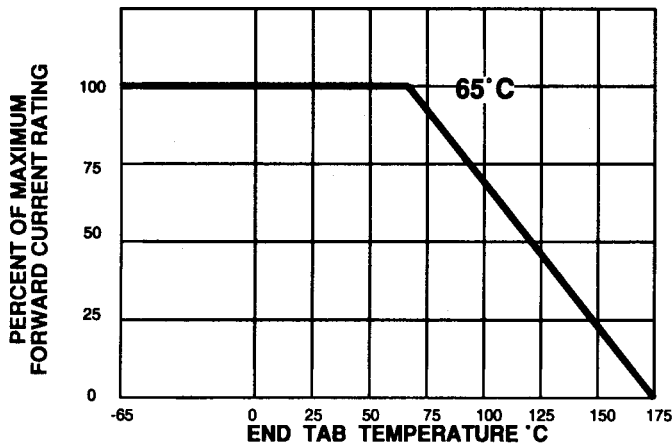


Dimensions are prior to solder dipping.

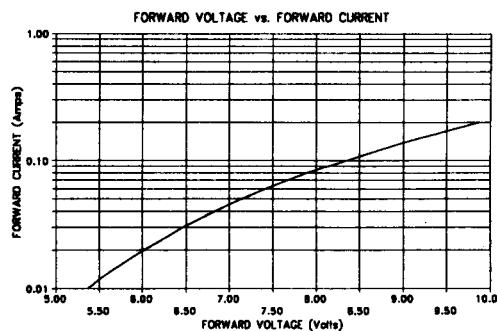
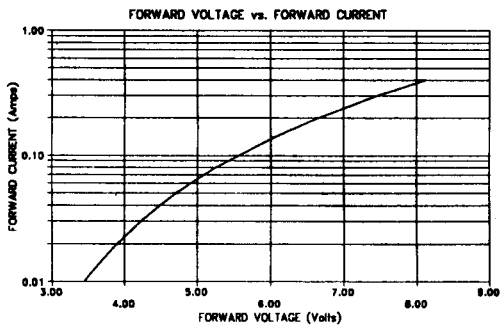
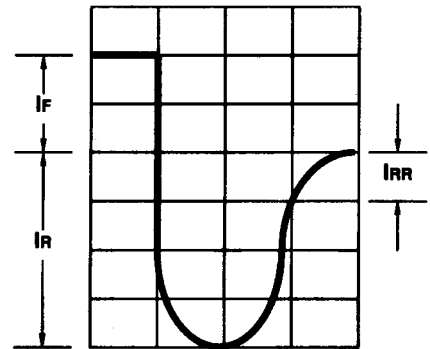
Part Number	DIM. A		DIM. B		DIM. C		DIM. D	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
SHM15-50UFSMS	.127"	.140"	.280"	.320"	.022"	.028"	.002"	---
SHM60-140UFSMS	.127"	.140"	.360"	.450"	.022"	.028"	.002"	---

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## TYPICAL OPERATING CURVES



### REVERSE RECOVERY WAVE FORM



For VF curves on SHM60UFSMS - SHM100UFSMS please contact SSDI.

SHM15UFSMS-SHM25UFSMS SHM30UFSMS-SHM50UFSMS