



PRELIMINARY

SOLID STATE DEVICES, INC

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

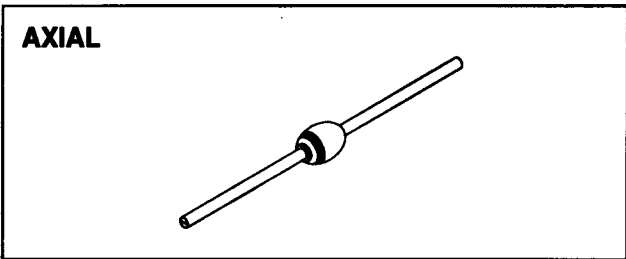
SHM15UF thru SHM140UF

Designer's Data Sheet

**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



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=1MHz	θJL
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	L=3/8" °C/W
SHM15UF	1500	250	145	1.0	25	10	15	60	8	65
SHM20UF	2000	250	145	1.0	25	10	15	60	8	65
SHM25UF	2500	250	145	1.0	25	10	15	60	8	65
SHM30UF	3000	150	90	1.0	25	14	10	60	4	65
SHM40UF	4000	150	90	1.0	25	14	10	60	4	65
SHM50UF	5000	150	90	1.0	25	14	10	60	4	65
SHM60UF	6000	100	60	1.0	25	20	5	60	2	65
SHM80UF	8000	100	60	1.0	25	20	5	60	2	65
SHM100UF	10000	100	60	1.0	25	20	5	60	2	65
SHM120UF	12000	100	60	1.0	25	22	5	60	2	65
SHM140UF	14000	50	30	1.0	25	26	1	100	2	95

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

SHM15UF thru SHM140UF

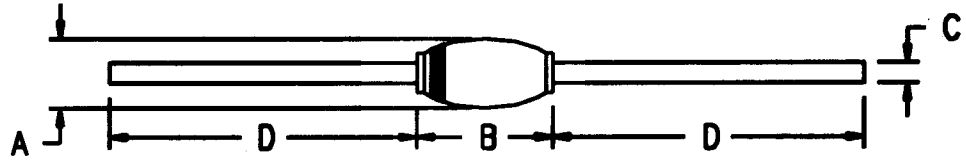
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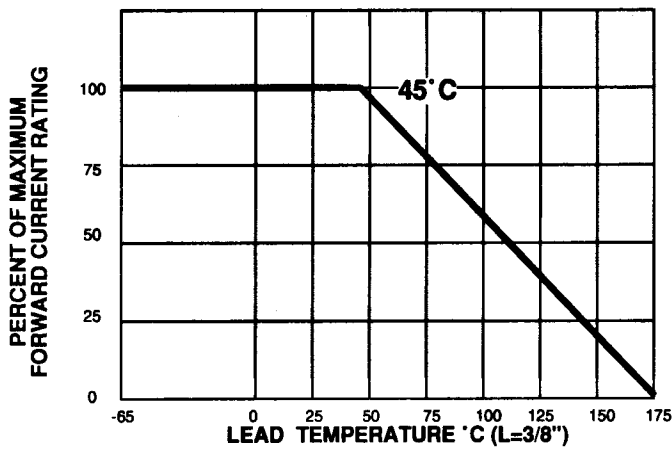
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PACKAGE OUTLINE:

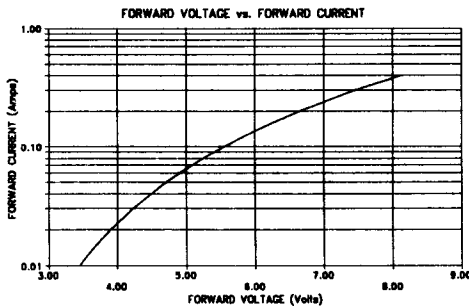
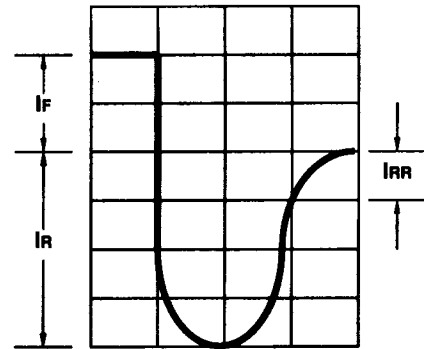


Part Number	DIM. A		DIM. B		DIM. C		DIM. D	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
SHM15-50UF	---	.140"	---	.300"	.025"	.033"	1.0"	---
SHM60-140UF	---	.140"	---	.400"	.025"	.033"	1.0"	---

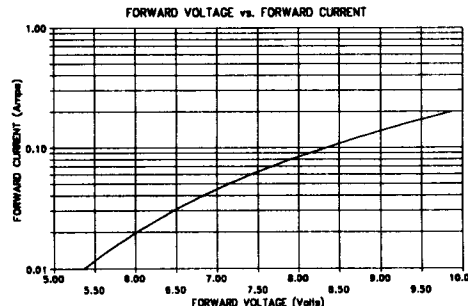
TYPICAL OPERATING CURVES



REVERSE RECOVERY WAVE FORM



SHM15UF-SHM25UF



SHM30UF-SHM50UF

For VF curves on SHM60UF - SHM100UF please contact SSDI.