



PRELIMINARY

SOLID STATE DEVICES, INC

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

Designer's Data Sheet

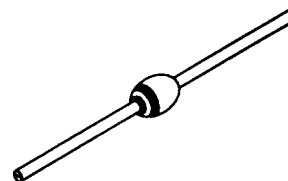
FEATURES:

- Fast Recovery: 150-200 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

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SHM15F
thru
SHM140F50-250 mA
1500-14000 VOLTS
150-200 nsec
HIGH VOLTAGE
RECTIFIER

AXIAL



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	θ_{JL}
UNITS	Volts	25°C mA	100°C mA	55°C μ A	100°C μ A	25°C Volts	25°C Amps	25°C nsec	@ 100 Volts pf	L= .25" °C/W
SHM15F	1500	250	160	1.0	25	8	15	150	8	65
SHM20F	2000	250	160	1.0	25	8	15	150	8	65
SHM25F	2500	250	160	1.0	25	8	15	150	8	65
SHM30F	3000	150	100	1.0	25	12	10	150	4	65
SHM40F	4000	150	100	1.0	25	12	10	150	4	65
SHM50F	5000	150	100	1.0	25	12	10	150	4	65
SHM60F	6000	100	65	1.0	25	18	5	150	2	65
SHM80F	8000	100	65	1.0	25	18	5	150	2	65
SHM100F	10000	100	65	1.0	25	18	5	150	2	65
SHM120F	12000	100	65	1.0	25	20	5	150	2	65
SHM140F	14000	50	35	1.0	25	24	1	200	2	95

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. lead 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

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

DATA SHEET #: RV0011 A

RMD

SHM15F thru SHM140F

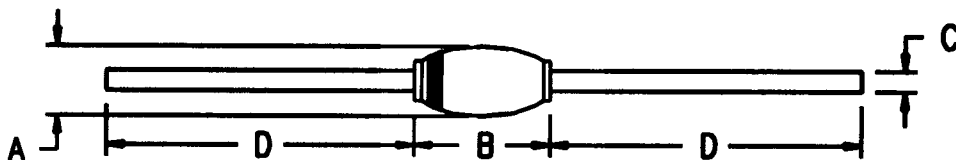
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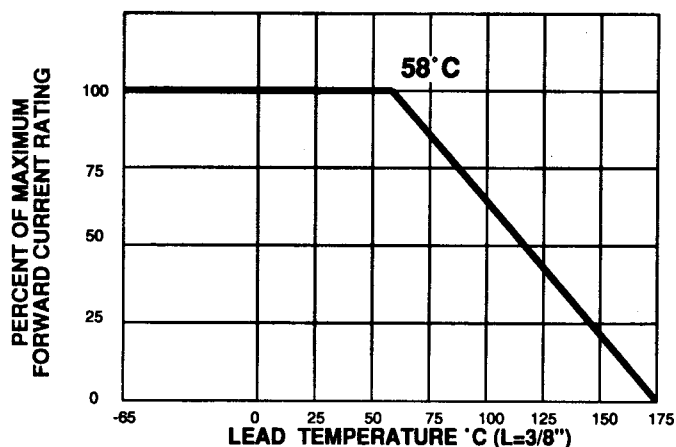
PACKAGE OUTLINE:



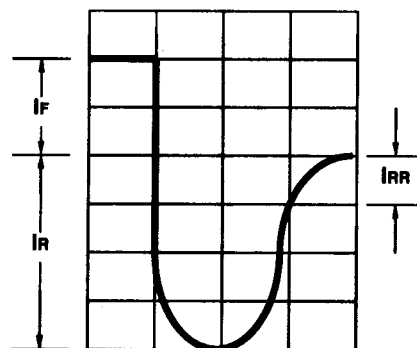
Part Number	DIM. A		DIM. B		DIM. C		DIM. D	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
SHM15-50F	---	.140"	---	.300"	.025"	.033"	1.0"	---
SHM60-140F	---	.140"	---	.400"	.025"	.033"	1.0"	---

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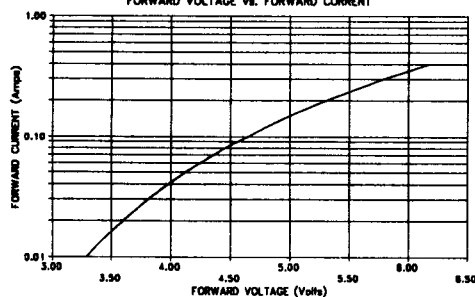
TYPICAL OPERATING CURVES



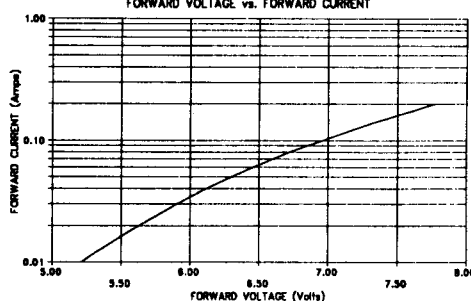
REVERSE RECOVERY WAVE FORM



FORWARD VOLTAGE vs. FORWARD CURRENT



FORWARD VOLTAGE vs. FORWARD CURRENT



For VF curves on SHM60F- SHM100F please contact SSDI.

SHM15F-SHM25F

SHM30F-SHM50F