



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638

Phone: (562) 404-4474 * Fax: (562) 404-1773

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SHM15 - SHM100 and SHM15SMS - SHM100SMS

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SHM	<table border="0"> <tr> <td style="padding-right: 5px;">Screening^{2/}</td> <td>= None</td> </tr> <tr> <td style="padding-right: 5px;">TX</td> <td>= TX Level</td> </tr> <tr> <td style="padding-right: 5px;">TXV</td> <td>= TXV Level</td> </tr> <tr> <td style="padding-right: 5px;">S</td> <td>= S Level</td> </tr> </table>	Screening ^{2/}	= None	TX	= TX Level	TXV	= TXV Level	S	= S Level												
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100-250 mA
1500 – 10000 VOLTS
5 μsec
HIGH VOLTAGE
RECTIFIER

FEATURES:

- Standard Recovery: 5 μsec Maximum
- PIV to 10000 Volts
- Hermetically Sealed
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- TX, TXV, and Space Level Screening Available^{2/}
- Limited Availability – Replacement Data Sheet: RC0197

ELECTRICAL CHARACTERISTICS

Part Number	Peak Inverse Voltage	Average Rectifier Current			Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (1 Cycle) 8.3 mS sine	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance	
		IO			IR @ PIV						θJL	θJE
Symbol	PIV	IO			IR @ PIV		VF	IFSM	tRR	CJ	θJL	θJE
Units	Volts	mA			μA		Volts	Amps	μsec	pF	°C/W	
Conditions	Volts	25°C	100°C		25°C	100°C	25°C	25°C	25°C	VR = 100V fT = 1MHZ	°C/W	
			L	SMS								
SHM15	1500	250	185	215	1.0	25	6	15	5	8	65	55
SHM20	2000	250	185	215	1.0	25	6	15	5	8	65	55
SHM25	2500	250	185	215	1.0	25	6	15	5	8	65	55
SHM30	3000	150	110	130	1.0	25	10	10	5	4	65	55
SHM40	4000	150	110	130	1.0	25	10	10	5	4	65	55
SHM50	5000	150	110	130	1.0	25	10	10	5	4	65	55
SHM60	6000	100	75	85	1.0	25	16	5	5	2	65	55
SHM80	8000	100	75	85	1.0	25	16	5	5	2	65	55
SHM100	10000	100	75	85	1.0	25	16	5	5	2	65	55

^{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.

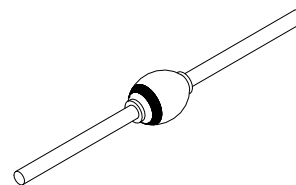
^{4/} Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.

^{5/} Max. lead temp. for soldering is 250°C, 3/8" from the case for 5 sec maximum.

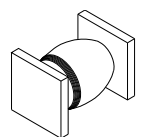
^{6/} Operating and storage temperature: -65°C to +175°C.

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

Axial



SMS (Square)



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

DATA SHEET #: RV0007C

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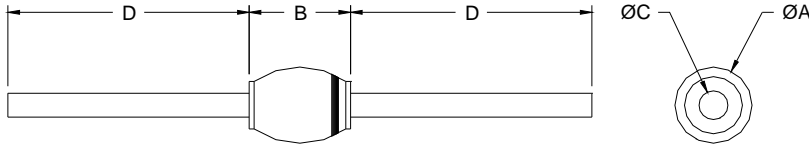


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 and
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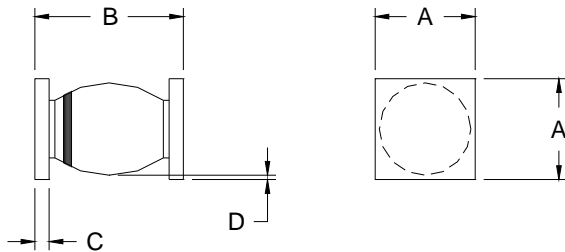
PACKAGE OUTLINE: AXIAL



DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	---	.140"
B	---	.300"
C	0.025"	0.033"
D	1.0"	---

DIMENSIONS: SHM60-100		
DIM	MIN	MAX
A	---	.140"
B	---	.400"
C	0.025"	0.033"
D	1.0"	---

PACKAGE OUTLINE: SURFACE MOUNT SQUARE TAB



DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	.127"	.140"
B	.280"	.320"
C	0.022"	0.028"
D	.002"	---

DIMENSIONS: SHM60-100		
DIM	MIN	MAX
A	.127"	.140"
B	.360"	.450"
C	0.022"	0.028"
D	.002"	---

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