



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SHR _ UF _ _

Screening^{2/} = None
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package
 _ = Axial
 SMS = Surface Mount Square Tab

Recovery Time
 UF = Ultrafast

Voltage
 25 = 2500 60 = 6000
 30 = 3000 80 = 8000
 40 = 4000 100 = 10000
 50 = 5000

SHR25UF – SHR100UF

and

SHR25UFSMS – SHR100UFSMS

500 mA

2500 – 10000 VOLTS

60 nsec

HIGH VOLTAGE RECTIFIER

FEATURES:

- High Current Replacement for SHM UF Series
- Ultrafast Recovery: 60 nsec Maximum
- PIV to 10000 Volts
- Hermetically Sealed
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- Higher Voltages Available – Contact Factory
- Standard, Fast, and Hyperfast Reverse Recovery Versions Available – Contact Factory
- TX, TXV, and Space Level Screening Available^{2/}

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	
Symbol	PIV	I _O			IR @ PIV		V _F ^{4/}	I _{FSM}	trr	C _J	θ _{JE}	θ _{JL}
Units		mA			μA		Volts	Amps	nsec	pF	°C/W	
Conditions	Volts	25°C	100°C ^{8/}		25°C	100°C	25°C	25°C	25°C	V _R = 100V f _T = 1MHZ		L = 3/8"
			Axial @ T _L	SMS @ T _{EC}								
SHR25UF	2500	400	250	350	1.0	15	10.5	18	60	6	15	35
SHR30UF	3000	400	250	350	1.0	15	10.5	18	60	6	15	35
SHR40UF	4000	400	250	350	1.0	15	10.5	18	60	6	15	35
SHR50UF	5000	250	150	200	1.0	15	12.0	15	60	4	15	35
SHR60UF	6000	250	150	200	1.0	15	12.0	15	60	4	15	35
SHR80UF	8000	125	75	100	1.0	15	16.0	8	60	3	18	42
SHR100UF	10000	125	75	100	1.0	15	16.0	8	60	3	18	42

Higher Voltages Available – Contact Factory

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. Instantaneous forward voltage measured @ 25°C rated I_O pulsed.

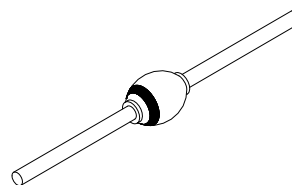
5/ Max. End Tab temp. for soldering is 250°C for 5 sec maximum.

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

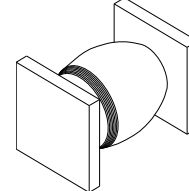
7/ Reverse Recovery Test Conditions: IF=500mA, IR=1000mA, IRR=250mA, TA=25°C.

8/ Derate I_O current linearly from 25°C to 100°C and from 100°C to 175°C.

Axial Leaded



SMS



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

DATA SHEET #: RC0178B

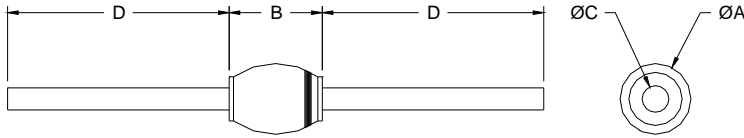
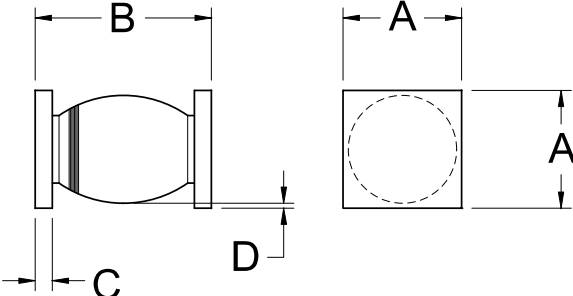
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**SHR25UF – SHR100UF
 and
 SHR25UFSMS – SHR100UFSMS**

PACKAGE OUTLINE:	Dimensions	Min	Max
Axial Lead  <p>The diagram shows a side view of an axial lead package with dimensions D, B, and D. A cross-sectional view shows dimensions ØC and ØA.</p>	A	---	.135
	B (SHR25 – 40)	.195	.235
	B (SHR50 – 60)	.210	.255
	B (SHR80 – 100)	.250	.310
	C	.028	.031
	D	1.000	---
Surface Mount Square Tab  <p>The diagram shows a side view of a surface mount square tab package with dimensions B, C, and D. A top view shows dimensions A and A.</p>	A	.132	.140
	B (SHR25 – 40)	.240	.305
	B (SHR50 – 60)	.255	.335
	B (SHR80 – 100)	.295	.370
	C	.025	.033
	D	.002	---

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