Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
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SDR9JUF & UFSMS thru SDR9MUF & UFSMS

DESIGNER'S DATA SHEET

9 AMP
800-1000 Volts
70 nsec
ULTRA FAST RECOVERY RECTIFIER

Part Number / Ordering Information [1/]

SDR9__UF __ __

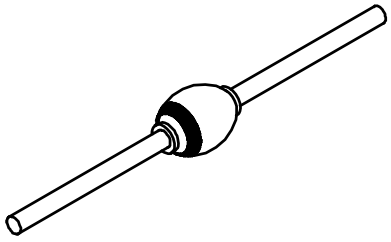
- **Screening**[2/] = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Package** ___ = None, SMS = Surface Mount Square Tab
- **Recovery Time** **UF = Ultra Fast**
- **Voltage** J = 600 V, K = 800 V, M = 1000 V

Features:
- Ultra Fast Recovery: 70 nsec maximum
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Single Chip Construction
- Replaces Larger DO-4 Rectifiers
- Low Thermal Resistance
- Fast and Hyper Fast Recovery Available. Contact Factory.
- TX, TXV, and S-Level Screening Available[2/]

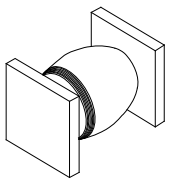
Maximum Ratings		Symbol	Value	Units
DC Blocking Voltage	**SDR9JUF & UFSMS** **SDR9KUF & UFSMS** **SDR9MUF & UFSMS**	V_{RRM} V_{RWM} V_R	600 800 1000	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_A = 25ºC)		**Io**	9	**Amps**
Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, Allow Junction to Reach Equilibrium Between Pulses, T_A = 25ºC)		I_{FSM}	125	**Amps**
Operating & Storage Temperature		**Top & Tstg**	-65 to +175	**ºC**
Maximum Thermal Resistance Junction to Leads, L = .125 " (Axial Lead) Junction to End Tab (Surface Mount)		$R_{\theta JL}$ $R_{\theta JE}$	8 4	**ºC/W**

Notes:
1/ For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.
2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

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 #: RC0057C**	**DOC**

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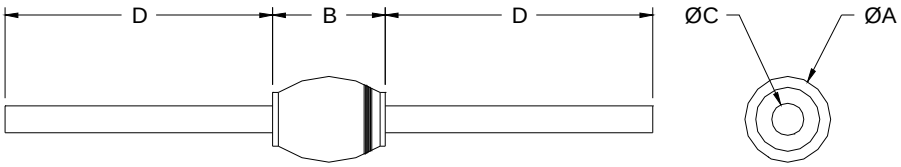
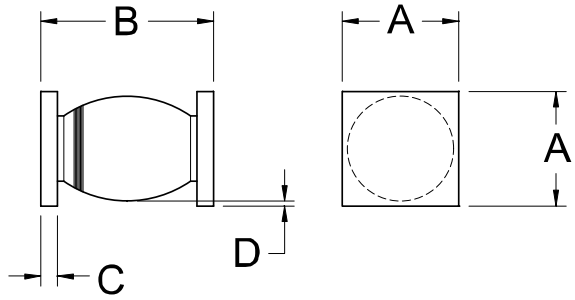
Electrical Characteristics		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (300-500 µs pulse)	I_F = 3A, T_A = 25ºC	V_{F1}	---	1.50	**Vdc**
	I_F = 9A, T_A = 25ºC	V_{F2}	---	1.90	
	I_F = 9A, T_A = -55ºC	V_{F3}	---	2.10	
Reverse Leakage Current (Rated V_R, 300 µs pulse minimum)	T_A = 25ºC	I_{R1}	---	10	**µA**
	T_A = 100ºC	I_{R2}	---	250	
Junction Capacitance (V_R = 10 V, T_A = 25ºC, f = 1MHz)		C_J	---	80	**pF**
Reverse Recovery Time (**I_F** = 500 mA, I_R = 1A, I_{RR} = 0.25A, T_A = 25ºC)		t_{rr}	---	70	**nsec**

Case Outline: Axial



DIMENSIONS		
DIM	**MIN**	**MAX**
A	---	0.170”
B	0.210”	0.250”
C	0.037”	0.043”
D	1.00”	---

Case Outline: SMS



DIMENSIONS		
DIM	**MIN**	**MAX**
A	0.170”	0.180”
B	0.260”	0.300”
C	0.020”	0.030”
D	0.002”	---

Notes:
Consult manufacturing for operating curves.