Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR9JF thru SDR9MF and SDR9JFSMS thru SDR9MFSMS Series

Designer's Data Sheet

Part Number/Ordering Information [1/]

SDR9 ___ ___ ___

- **Screening** [2/]
  - __ = Not Screened
  - TX = TX Level
  - TXV = TXV
  - S = S Level
- **Package Type**
  - __ = Axial Leaded
  - SMS = Surface Mount Square Tab
  - ASMS = SMS with .145/.155" End Tab Size
- **Voltage/Family**
  - JF = 600 V
  - KF = 800 V
  - MF = 1000 V

9.0 AMPS
600 – 1000 VOLTS
250 ns typical FAST RECOVERY RECTIFIER

FEATURES:

- **Fast Reverse Recovery: 250 ns typical** [4/]
- **PIV to 1000 Volts**
- **Hermetically Sealed**
- **Low Reverse Leakage Current**
- **Single Chip Construction**
- **Replaces Larger DO-4 Rectifiers**
- **Low Thermal Resistance**
- **Available in Axial & Square Tab Versions**
- **TX, TXV, and S-Level Screening Available** [2/]
- **Ultra Fast and Hyper Fast Recovery Versions Available- Contact Factory**

MAXIMUM RATINGS [3/]

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage And DC Blocking Voltage	SDR9JF & SDR9JFSMS SDR9KF & SDR9KFSMS SDR9MF & SDR9MFSMS	V_{RRM} V_{RWM} V_R	600 800 1000	**V**
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, TA = 25°C)		I_O	9.0	**A**
Peak Surge Current (8.3 ms pulse, half sine wave, superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)		I_{FSM}	100	**A**
Operating & Storage Temperature		T_J and T_{STG}	-65 to +175	**°C**
Thermal Resistance	Junction to Lead for Axial, L =.125" Junction to End Tab for Surface Mount	$R_{\theta JL}$ $R_{\theta JE}$	9 4	**°C/W**

NOTES: *Pulsed per MIL-STD-750.

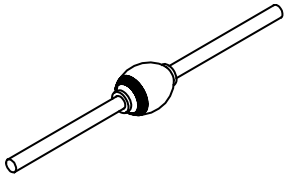
1/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.

2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

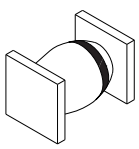
3/ Unless Otherwise Specified, All Electrical Characteristics @25ºC.

4/ I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°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 #: RC0056F	DOCX

Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR9JF thru SDR9MF and SDRJFSMS thru SDRMFSMS Series

ELECTRICAL CHARACTERISTICS [3/]

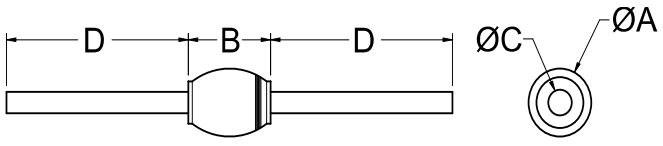
CHARACTERISTICS		SYMBOL	VALUE	UNIT
			MAX	
Instantaneous Forward Voltage Drop I_F = 9.0 Adc, pulsed	T_A = +25°C T_A = -55°C	V_{F1} V_{F2}	1.15 1.30	**Vdc**
Reverse Leakage Current Rated V_R, pulsed	T_A = +25°C T_A =+100°C	I_{R1} I_{R2}	1.0 50	**µA**
Junction Capacitance V_R = 10 Vdc, f = 1 MHz, T_A = 25°C		C_J	50	**pF**
Reverse Recovery Time I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25°C		t_{rr}	250 typ. 325 max.	**ns**

Package Outlines:

DIMENSIONS (inches)		
DIM.	Minimum	Maximum
A	---	.170
B	.210	.250
C	.037	.043
D	1.000	---

DIMENSIONS (inches)		
DIM.	Minimum	Maximum
A (SMS)	.170	.180
A (ASMS)	.145	.155
B	.260	.300
C	.020	.030
D	.002	---

AXIAL



SMS