



Solid State Devices, Inc.

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**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 = 600V
- KF = 800V
- MF = 1000V

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

- FEATURES:**
- Fast Reverse Recovery: 250ns Maximum ^{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

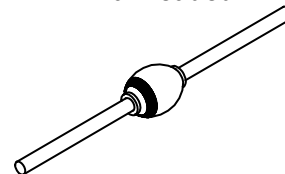
MAXIMUM RATINGS ^{3/}

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 Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T _A = 25°C)	I _O	9.0	Amps
Peak Surge Current (8.3 ms pulse, half sine wave, superimposed on I _O , allow junction to reach equilibrium between pulses, T _A = 25°C)	I _{FSM}	150	Amps
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 _{θJL} R _{θJE}	8 4 °C/W

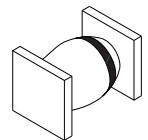
NOTES:

- 1/** For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.
- 2/** Screened to MIL-PRF-19500.
- 3/** Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 4/** I_F = 500mA, I_R = 1A, I_{RR} = 250mA, 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 #: RC0056C

DOC



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ELECTRICAL CHARACTERISTICS ^{3/}				
CHARACTERISTICS		SYMBOL	VALUE	UNIT
			MAX	
Instantaneous Forward Voltage Drop I _F = 9.0 Adc, 300-500µs pulse	T _A = +25°C	V_{F1}	1.15	Vdc
	T _A = -55°C	V_{F2}	1.30	
Reverse Leakage Current Rated V _R , 300µs pulse minimum	T _A = +25°C	I_{R1}	1.0	µA
	T _A = +100°C	I_{R2}	50	
Junction Capacitance V _R = 10 Vdc, f = 1MHz, T _A = 25°C		C_J	50	pF
Reverse Recovery Time I _F = 500mA, I _R = 1A, I _{RR} = 250mA, T _A = 25°C		t_{rr}	250 typ. 325 max.	ns

Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	---	.170	A (SMS)	.170	.180
B	.210	.250	A (ASMS)	.145	.155
C	.037	.043	B	.260	.300
D	1.000	---	C	.020	.030
			D	.002	---
AXIAL			SMS		

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