



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**

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

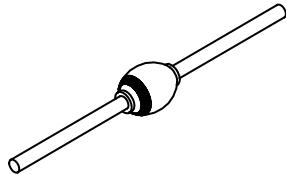
MAXIMUM RATINGS ^{3/}

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, $T_A = 25^\circ C$)		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, $T_A = 25^\circ C$)		I_{FSM}	150 Amps
Operating & Storage Temperature		T_J and T_{STG}	-65 to +175 $^\circ C$
Thermal Resistance	Junction to Lead for Axial, $L = .125"$ Junction to End Tab for Surface Mount	$R_{\theta JL}$ $R_{\theta JE}$	8 4 $^\circ C/W$

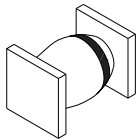
NOTES:

- 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/** $I_F = 500mA$, $I_R = 1A$, $I_{RR} = 250mA$, $T_A = 25^\circ C$

Axial Leaded



SMS





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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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