SSDI

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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
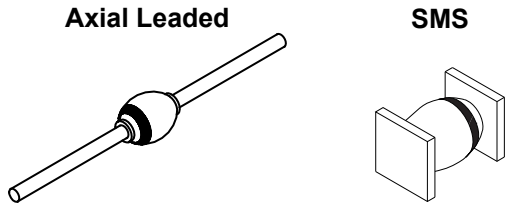**600 ─ 1000 VOLTS**
250 ns typical FAST RECOVERY RECTIFIER

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, TA = 25°C)		I_O	9.0	Amps
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	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	$R_{\theta JL}$ $R_{\theta JE}$	8 4	°C/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.

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

4/ I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C

Axial Leaded

SMS

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**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, 300-500μs pulse	T_A = +25°C T_A = -55°C	V_{F1} V_{F2}	1.15 1.30	Vdc
Reverse Leakage Current Rated V_R, 300μs pulse minimum	T_A = +25°C T_A =+100°C	I_{R1} I_{R2}	1.0 50	μA
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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