



SOLID STATE DEVICES, INC.

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Designer's Data Sheet

**SDR9JUF & FSMS
 thru
 SDR9MUF & FSMS**

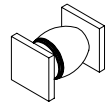
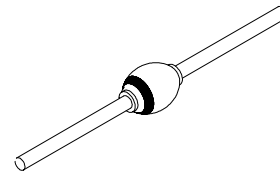
**9 AMP
 800 - 1000 VOLTS
 70 nsec
 ULTRA FAST RECOVERY
 RECTIFIER**

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
- TX, TXV, and Space Level Screening Available
- Fast and Hyper Fast Recovery Available. Contact Factory.

AXIAL

SURFACE MOUNT
(SMS)



Maximum Ratings	SYMBOL	VALUE	UNITS
DC Blocking Voltage	SDR9JUF & FSMS SDR9KUF & FSMS SDR9MUF & FSMS	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	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}	125	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-65 TO +175	$^\circ C$
Maximum Thermal Resistance Junction to Lead, L = .125" (Axial Lead) Junction to End Tab (Surface Mount)	$R_{\theta JL}$ $R_{\theta JE}$	8 4	$^\circ C/W$

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0057A

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Electrical Characteristics	SYMBOL	MIN	MAX	UNITS
Instantaneous Forward Voltage Drop (300 - 500µs Pulse)	$I_F = 3A, T_A = 25^\circ C$	--	1.40	V_{DC}
	$I_F = 9A, T_A = 25^\circ C$	--	1.75	
	$I_F = 9A, T_A = -55^\circ C$	--	1.95	
Reverse Leakage Current (Rated V_R , 300 µs min Pulse)	$T_A = 25^\circ C$	--	10	µA
	$T_A = 100^\circ C$	--	250	µA
Junction Capacitance ($V_R = 10V, f = 1 MHz, T_A = 25^\circ C$)	C_J	--	80	pF
Reverse Recovery Time ($I_F = 500 mA, I_R = 1 A, I_{RR} = 250 mA, T_A = 25^\circ C$)	t_{RR}	--	70	nsec

CASE OUTLINE: AXIAL LEAD

DIMENSIONS		
DIM	MIN.	MAX.
A	0.210	0.250"
B	--	0.170"
C	1.00"	--
D	.037"	.043"

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.