



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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**SUM60UF thru SUM90UF
 and
 SUM60UFSMS thru SUM90UFSMS**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SUM _ _ _

└─ Screening ^{2/}

_ = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

└─ Package Type

_ = Axial Leaded

SMS = Surface Mount Square Tab

Voltage/Family

60UF = 6,000V

70UF = 7,000V

80UF = 8,000V

90UF = 9,000V

**400 mA
 ULTRA FAST RECOVERY RECTIFIER
 6,000 thru 9,000 VOLTS
 70 nsec**

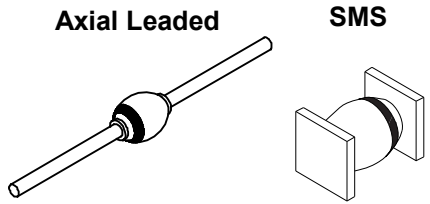
- FEATURES:**
- PIV to 9,000 Volts
 - Hermetically sealed axial and square tab surface mount package
 - Ultra fast recovery 70 nsec maximum ^{4/}
 - Void free construction
 - Metallurgically bonded
 - 175°C maximum operating temperature
 - TX, TXV, and S-level screening available ^{2/}
 - Also available in fast versions, consult factory

MAXIMUM RATINGS ^{3/ 6/}

RATING	SYMBOL	VALUE	UNIT
Peak Inverse Voltage	PIV	6000	Volts
		7000	
		8000	
		9000	
		9000	
Average Rectified Current	I_{O1} I_{O2}	400	mA
		250	
Surge Current (1 Cycle)	I_{FSM}	25	Amps
Operating & Storage Temperature ^{5/}	T_J and T_{STG}	-65 to +175	°C

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 @25°C.
- 4/ I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C
- 5/ Maximum lead/end temperature for soldering is 250°C, 3/8" from case for 5 sec. maximum.
- 6/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in suitable dielectric material.





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ELECTRICAL CHARACTERISTICS 3/ 6/

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Maximum Forward Voltage (300µs pulse minimum) $I_F = 400 \text{ mA}$	V_F	15.5	Vdc
Maximum Reverse Leakage Current ($V_R = \text{Rated}$)	I_{R1} I_{R2}	1.0 15	µA µA
Maximum Junction Capacitance $V_R = 100 \text{ Vdc}$, $f = 1 \text{ MHz}$, $T_A = 25^\circ\text{C}$	C_J	8	pF
Maximum Reverse Recovery Time $I_F = 500 \text{ mA}$, $I_R = 1 \text{ A}$, $I_{RR} = 250 \text{ mA}$, $T_A = 25^\circ\text{C}$	t_{rr}	70	ns
Typical Thermal Impedance	$R_{\theta JL}$ $R_{\theta JE}$	18 18	°C/W

Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	.065	.165	A	.170	.180
B	---	.350	B	.330	.380
C	.047	.053	C	.020	.030
D	1.00	---	D	.002	---

