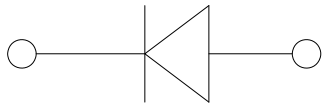
Surface Mount Fast Recovery Rectifier

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

consumer, and telecommunication.



Mechanical Data

- Package : SMAF
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals : Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25 - Unless otherwise specified Å

PARAMETER	SYMBOL	UNIT	F2AF	F2BF	F2DF	F2GF	F2JF	F2KF	F2MF
Device marking code			F2AF	F2BF	F2DF	F2GF	F2JF	F2KF	F2MF
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	I_O	A	2.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25 -	I_{FSM}	A	50						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25 -			100						
Current squared time @1ms "t "8.3ms Tj=25 -	I^2t	A^2s	10.375						
Storage temperature	T_{stg}	-	-55 ~ +150						
Junction temperature	T_j	-	-55 ~ +150						

Electrical Characteristics ÄTa=25 - Unless otherwise specified Å

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	F2AF	F2BF	F2DF	F2GF	F2JF	F2KF	F2MF
Maximum instantaneous forward voltage	V_F	V	I_{FM}=2.0A	1.3						
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	150				250	500	
Maximum DC reverse current at rated DC blocking voltage	I_R	A	T_j =25 -	5.0						
			T_j =125 -	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	18				11		

vThermal Characteristics ÄTa=25 - Unless otherwise specified Å

PARAMETER	SYMBOL	UNIT	F2AF	F2BF	F2DF	F2GF	F2JF	F2KF	F2MF
Typical Thermal resistance	R J-A(1)	- /W	65						
	R J-L(1)		20						
	R J-C(1)		18						

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

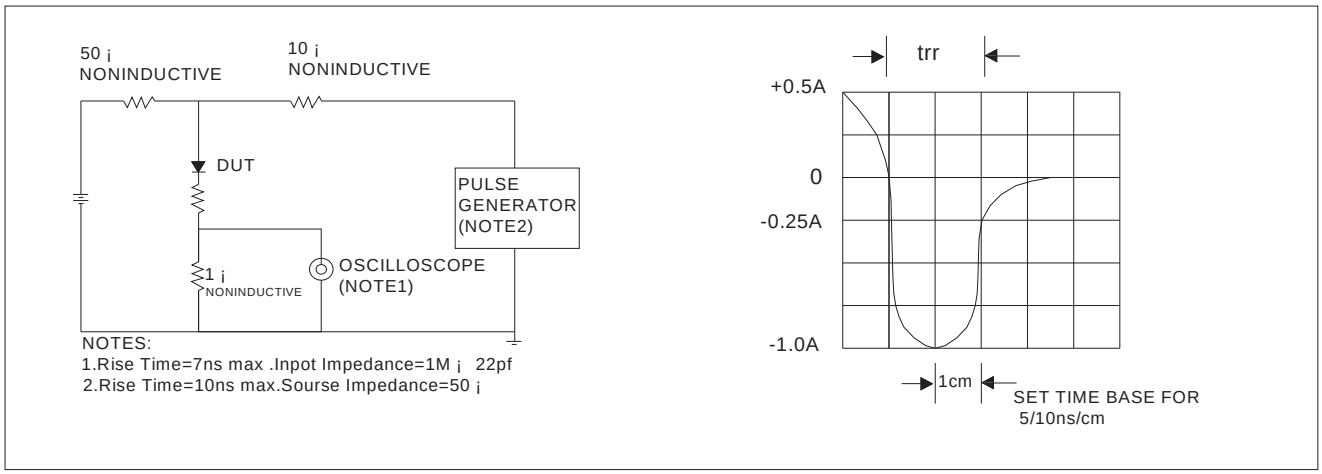
vCharacteristics (Typical)

FIG2:Surge Forward Current Capability

Peak Forward Surge Current(A)

Number of Cycles

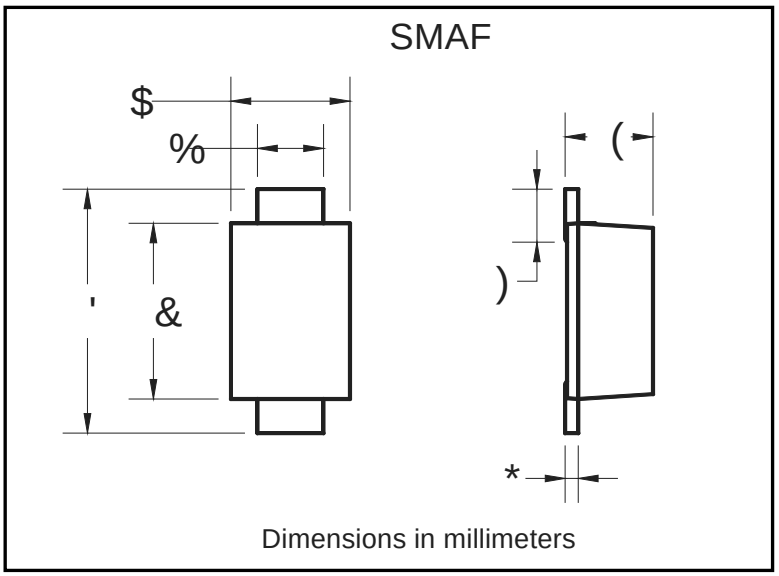
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



vOrdering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
F2AF-F2MF	F1	Approximate 0.034	3000	24000	96000	7” reel
F2AF-F2MF	F2	Approximate 0.034	10000	/	160000	13” reel
F2AF-F2MF	F3	Approximate 0.034	10000	/	120000	13” reel
F2AF-F2MF	F4	Approximate 0.034	7500	/	120000	13” reel

vOutline Dimensions



SMAF		
Dim	Min	Max
A	2.40	2.80
B	1.35	1.45
C	3.40	3.60
D	4.40	4.80
E	1.05	1.25
F	0.50	1.00
G	0.15	0.22

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