



# RSFAL THRU RSFML

## 0.5 AMP. Surface Mount Fast Recovery Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
0.5 Ampere

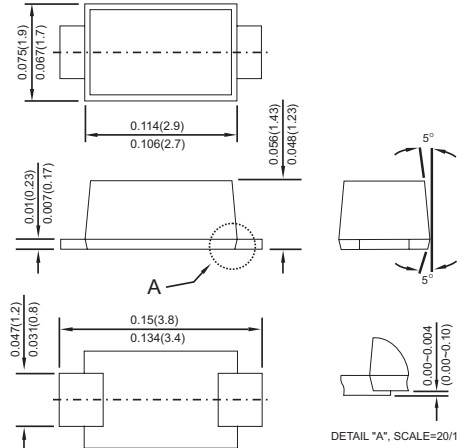
### Features

- ✧ For surface mounted application
- ✧ Glass passivated junction chip
- ✧ High temperature metallurgically bonded construction
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Fast switching for high efficiency
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

### Mechanical Data

- ✧ Cases: Sub SMA plastic case
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per E1A STD RS-481
- ✧ Weight: 15mg

### Sub SMA



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	RSF AL	RSF BL	RSF DL	RSF GL	RSF JL	RSF KL	RSF ML	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Marking Code ( Note 4 )		FALYM	FBLYM	FDLYM	FGLYM	FJLYM	FKLYM	FMLYM	
Maximum Average Forward Rectified Current See Fig. 1 @ $T_A=55^\circ\text{C}$	$I_{(AV)}$	0.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	10							A
Max. Full Load Reverse Current, Full cycle Average $T_A=55^\circ\text{C}$	$I_R$	30							$\mu\text{A}$
Maximum Instantaneous Forward Voltage @ 0.5A	$V_F$	1.3							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	150				250	500		nS
Typical Junction Capacitance ( Note 2 )	$C_j$	4.0							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	150 32							$^\circ\text{C}/\text{W}$ $^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1 MHz and Applied  $V_R=4.0$  Volts

3. Measured on P.C.Board with 0.2" x 0.2" (5mm x 5mm) Copper Pad Areas.

4. FALYM: F=0.5A, A=50V, L-Low Profile, Y-Year Code, M-Month Code.

## RATINGS AND CHARACTERISTIC CURVES (RSFAL THRU RSFML)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

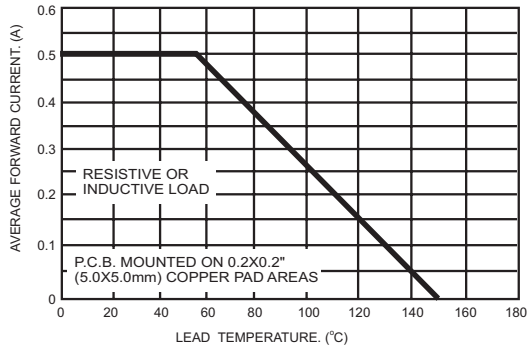


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

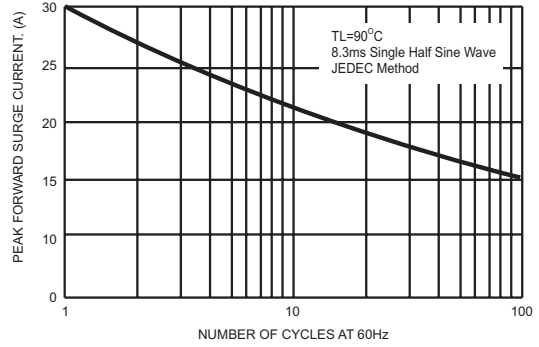


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

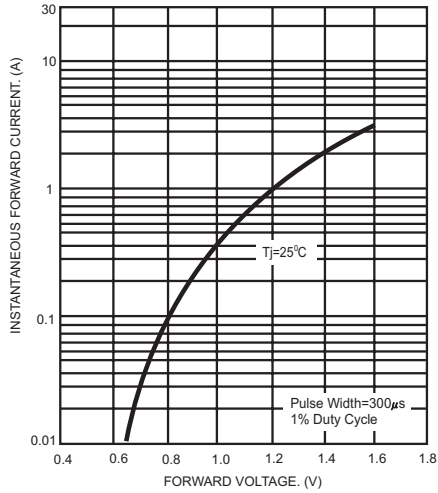


FIG.4- TYPICAL REVERSE CHARACTERISTICS

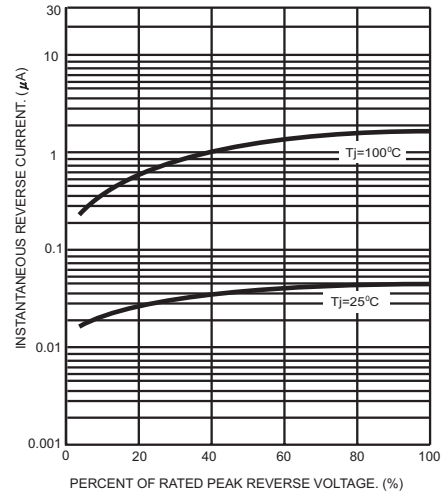


FIG.5- TYPICAL JUNCTION CAPACITANCE

