RSFAL THRU RSFML

0.5 AMP. Surface Mount Fast Recovery Rectifiers

Voltage Range
50 to 1000 Volts
Current
0.5 Ampere

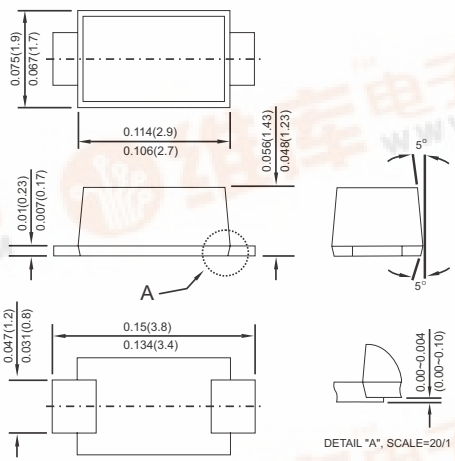
Features

- 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℃/ 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



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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_L=55°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℃	I_R	30							uA
Maximum Instantaneous Forward Voltage @ 0.5A	V_F	1.3							V
Maximum DC Reverse Current @ T_A =25℃ at Rated DC Blocking Voltage @ T_A=125℃	I_R	5 50							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		nS
Typical Junction Capacitance (Note 2)	Cj	4.0							pF
Typical Thermal Resistance (Note 3)	$R\theta_{JA}$ $R\theta_{JL}$	150 32							℃/W ℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Notes: 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1 MHz and Applied VR=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

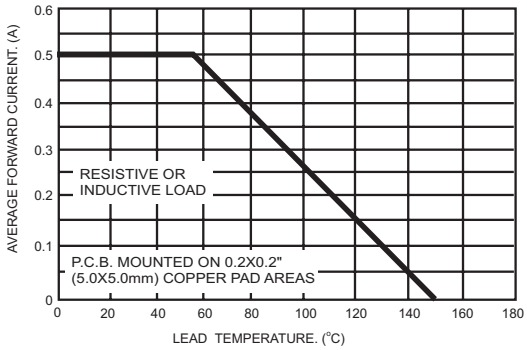


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

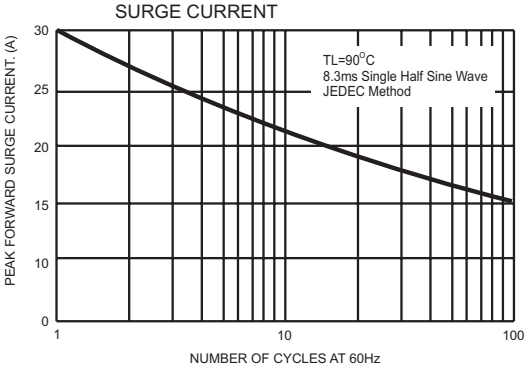


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

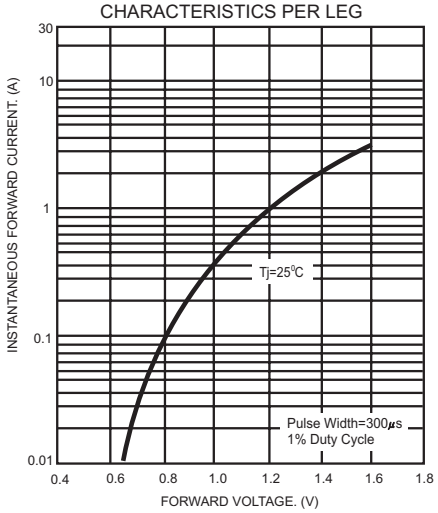


FIG.4- TYPICAL REVERSE CHARACTERISTICS

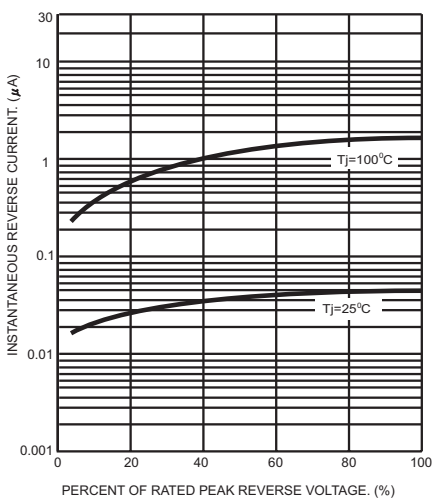


FIG.5- TYPICAL JUNCTION CAPACITANCE