



## Features

- ◊ For surface mounted application
- ◊ Glass passivated junction chip.
- ◊ Low-Profile Package
- ◊ Ideal for automated placement
- ◊ Low power loss, high efficiency
- ◊ High temperature soldering:  
260°C / 10 seconds at terminals

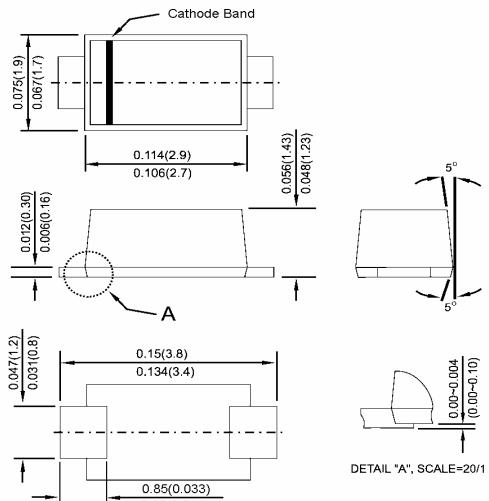
## Mechanical Data

- ◊ Case: Sub SMA plastic case
- ◊ Terminal : Pure tin plated, lead free.
- ◊ Polarity: Color band denotes cathode
- ◊ Packaging: 8mm / 12mm tape per EIA STD RS-481
- ◊ Weight: approx. 15mg
- ◊ Marking code refer to Note 1.

## S1AL - S1ML

### 1.0 AMP. Surface Mount Rectifiers

#### Sub SMA



Dimensions in inches and (millimeters)

## 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	S1AL	S1BL	S1DL	S1GL	S1JL	S1KL	S1ML	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 1)		1ALYM	1BLYM	1DLYM	1GLYM	1JLYM	1KLYM	1MLYM			
Maximum Average Forward Rectified Current @ $T_L = 110^\circ\text{C}$ @ $T_{tp} = 75^\circ\text{C}$ 20ms Square pulse	$I_{(AV)}$	1.0						A			
		1.5									
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30						A			
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.1						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						uA			
		50						uA			
Typical Junction Capacitance ( Note 2 )	$C_j$	9						pF			
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	1.8						uS			
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$ $R_{\theta JA}$	25				30		$^\circ\text{C} / \text{W}$			
Operating Temperature Range	$T_J$	-55 to +150						$^\circ\text{C}$			
Storage Temperature Range	$T_{STG}$	-55 to +150						$^\circ\text{C}$			

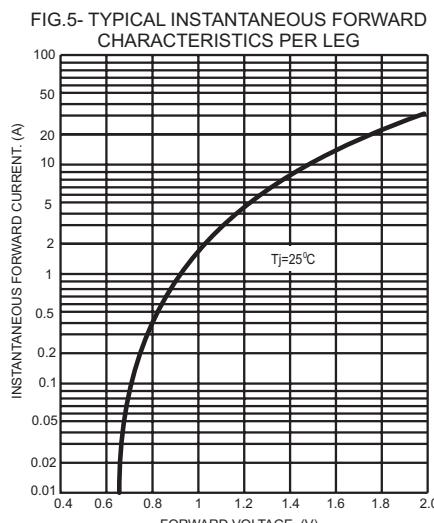
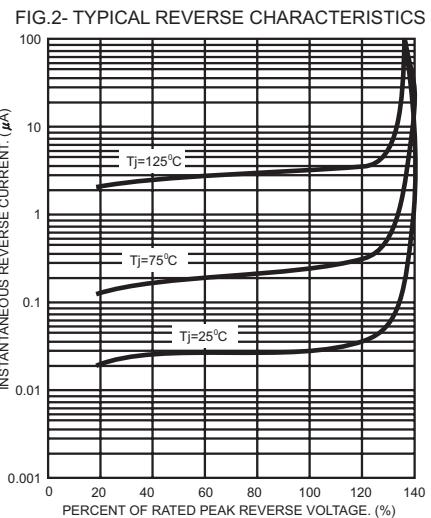
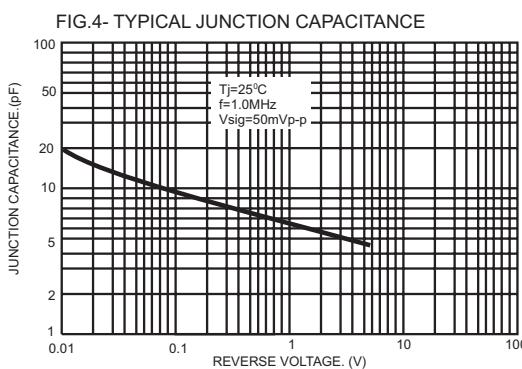
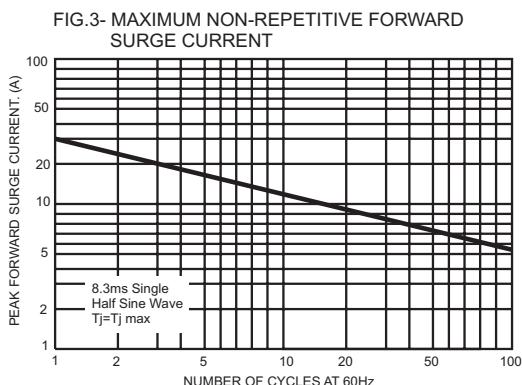
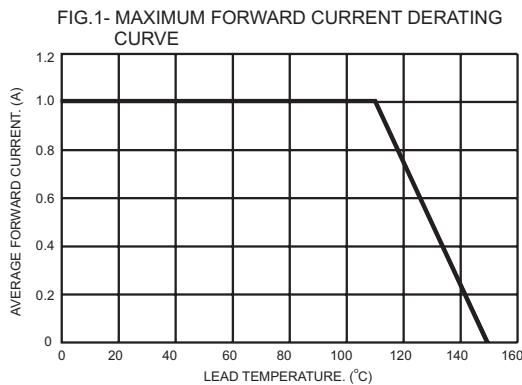
Notes: 1. 1ALYM: 1=1A, A=50V, L-Low Profile, Y-Year Code, M-Month Code

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

3. Reverse Recovery Time Condition:  $IF=0.5\text{A}$ ,  $IR=1.0\text{A}$ ,  $IRR=0.25\text{A}$

4. Measured on P.C. Board with 0.2" x 0.2" (5.0mm x 5.0mm) Copper Pad Areas.

## RATINGS AND CHARACTERISTIC CURVES (S1AL THRU S1ML)



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