



# S1AL THRU S1ML

## 1.0 AMP. Surface Mount Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
1.0 Ampere

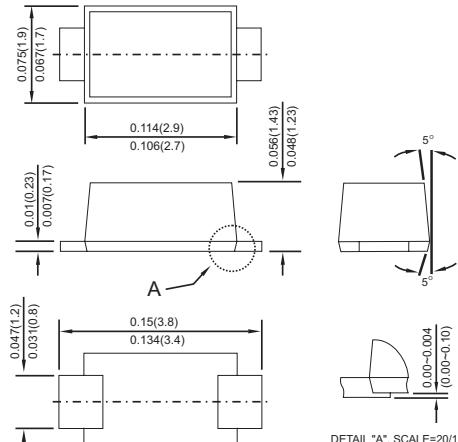
### Features

- 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: JEDEC DO-219-AB(SMF) plastic case
- Polarity: Color band denotes cathode end
- Packaging: 12mm tape per EIA STD RS-481
- Weight: approx. 15mg

#### 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 3)		1ALYM	1BLYM	1DLYM	1GLYM	1JLYM	1KLYM	1MLYM				
Maximum Average Forward Rectified Current @ $T_L = 110^\circ\text{C}$	$I_{(AV)}$	1.0							A			
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 50							uA uA			
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	25 85			30 85				°C/W			
Typical Junction Capacitance ( Note 1 )	$C_J$	9							pF			
Operating Temperature Range	$T_J$	-55 to +150							°C			
Storage Temperature Range	$T_{STG}$	-55 to +150							°C			

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

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

3. 1ALYM: 1=1A, A=50V, L-Low Profile, Y-Year Code, M-Month Code.

## RATINGS AND CHARACTERISTIC CURVES (S1AL THRU S1ML)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

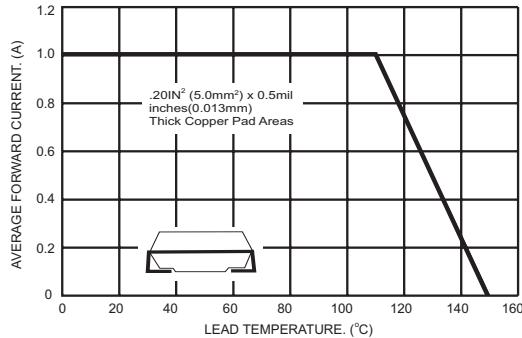


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

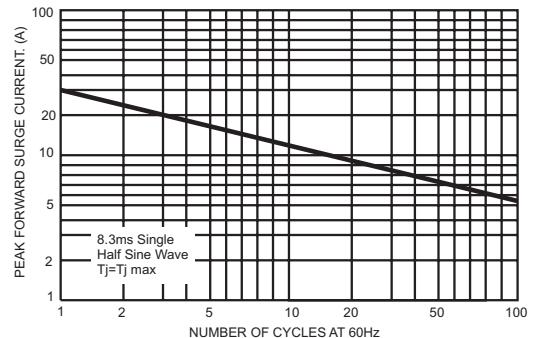


FIG.3- TYPICAL FORWARD CHARACTERISTICS

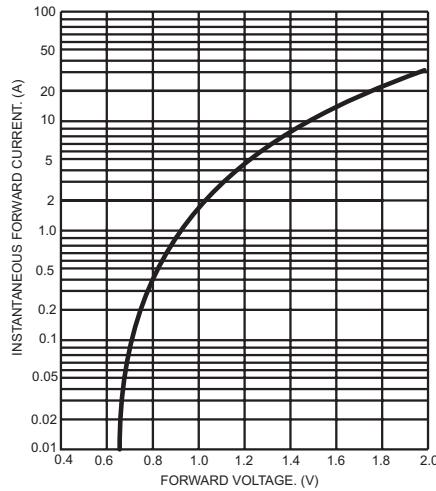


FIG.4- TYPICAL REVERSE CHARACTERISTICS

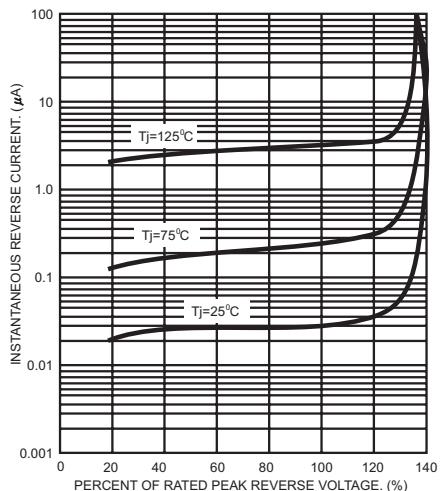


FIG.5- TYPICAL JUNCTION CAPACITANCE

