



ES1AL - ES1JL

1.0 AMP. Surface Mount Super Fast Rectifiers Sub SMA

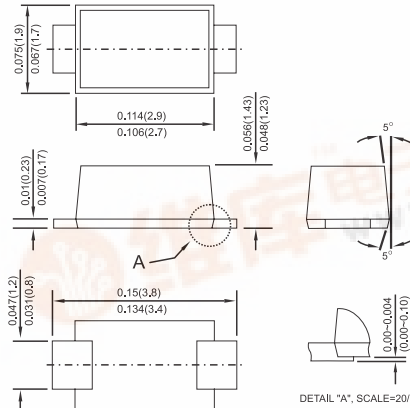


Features

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

Mechanical Data

- ◇ Cases: Sub SMA plastic case
- ◇ Terminal : Pure tin plated, lead free.
- ◇ Polarity: Color band cathode end
- ◇ Packing: 12mm tape per EIA STD RS-481
- ◇ Weight: approx. 15mg
- ◇ Marking: As below table



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	ES 1AL	ES 1BL	ES 1CL	ES 1DL	ES 1FL	ES 1GL	ES 1HL	ES 1JL	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Marking Code		EALYM	EBLYM	ECLYM	EDLYM	EFLYM	EGLYM	EHLYM	EJLYM	
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	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	0.95			1.3		1.7			V
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at Rated DC Blocking Voltage @ $T_A = 100^\circ C$	I_R					5.0				uA uA
Maximum Reverse Recovery Time (Note 1)	T_{rr}					35				nS
Typical Junction Capacitance (Note 2)	C_j	10			8					pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$					85				$^\circ C/W$ $^\circ C/W$
Operating Temperature Range	T_J					-55 to +150				$^\circ C$
Storage Temperature Range	T_{STG}					-55 to +150				$^\circ C$

- Notes:
1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
 2. Measured at 1 MHz and Applied $V_R = 4.0$ Volts
 3. P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Area.

RATINGS AND CHARACTERISTIC CURVES (ES1AL THRU ES1JL)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

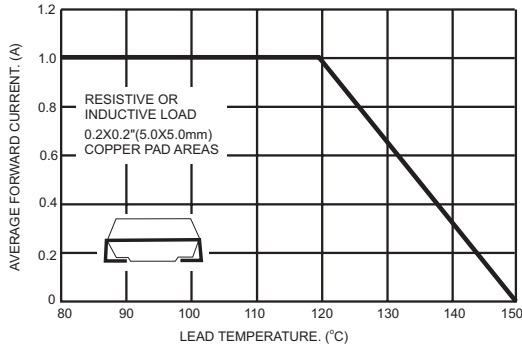


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

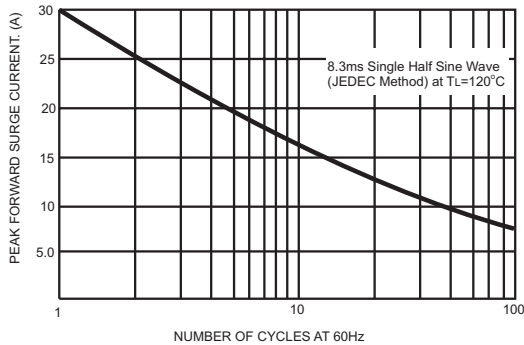


FIG.4- TYPICAL JUNCTION CAPACITANCE

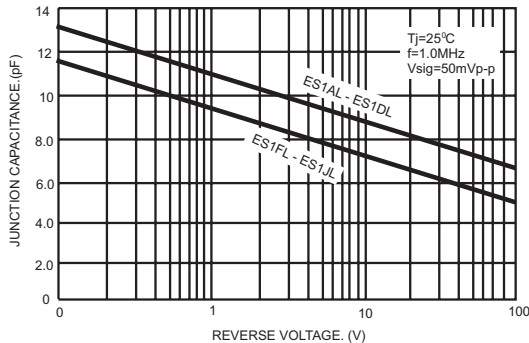


FIG.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

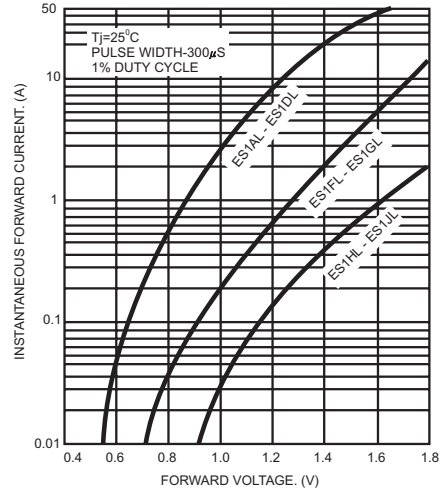


FIG.5- TYPICAL REVERSE CHARACTERISTICS

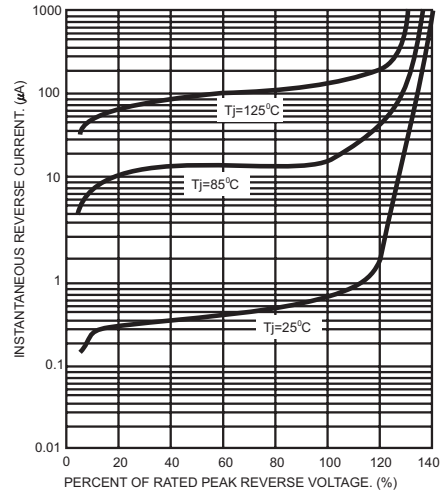


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

