

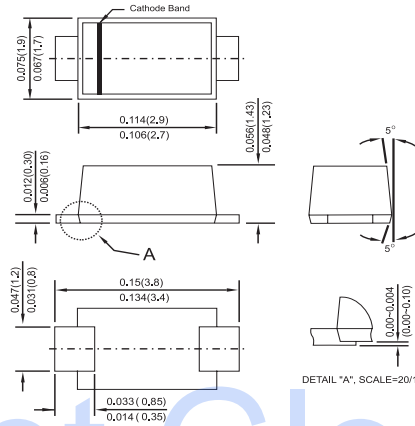


### Features

- ✧ 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 @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$					5.0				$\mu\text{A}$ $\mu\text{A}$
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		35		$^\circ\text{C}/\text{W}$
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. 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

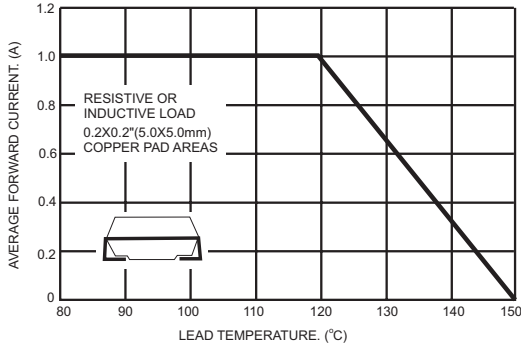


FIG.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

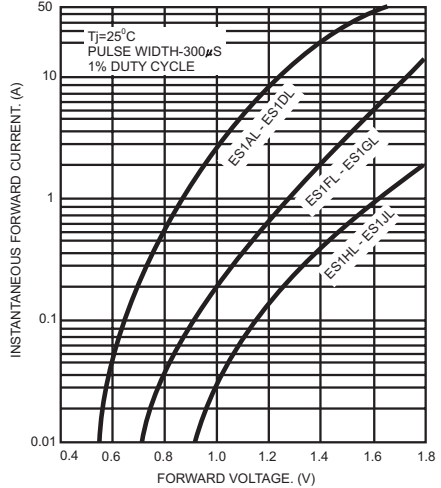


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

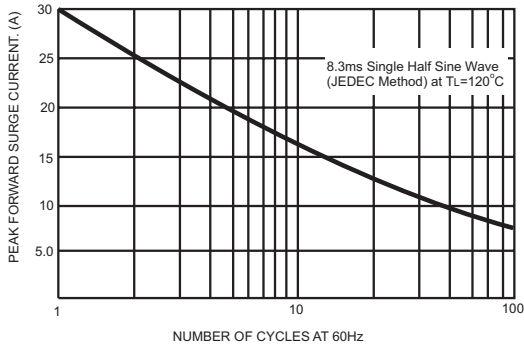


FIG.5- TYPICAL REVERSE CHARACTERISTICS

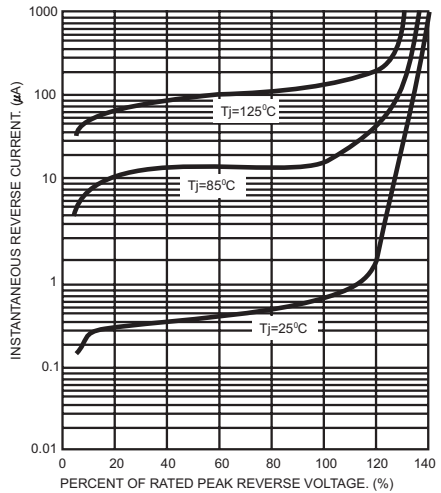


FIG.4- TYPICAL JUNCTION CAPACITANCE

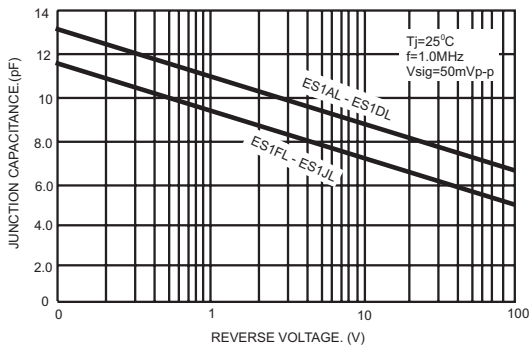


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

