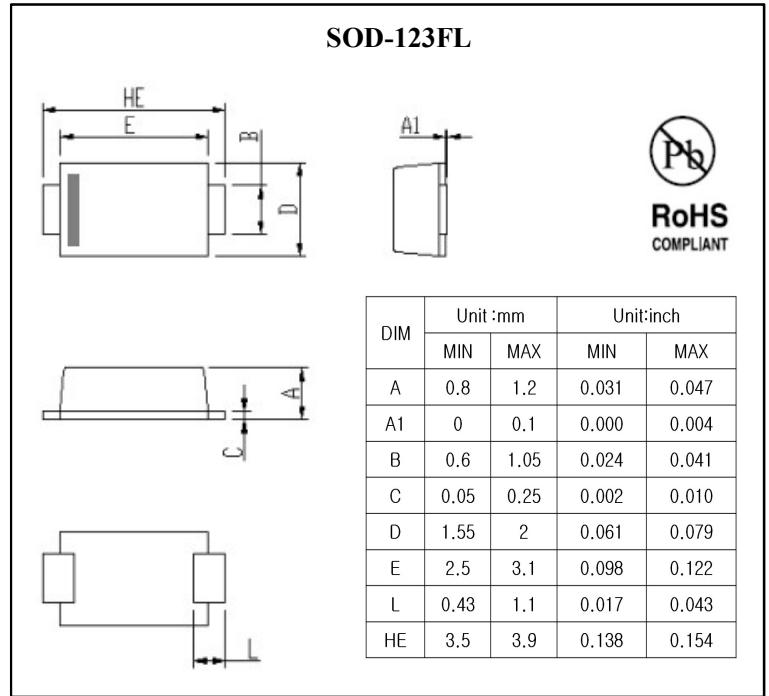
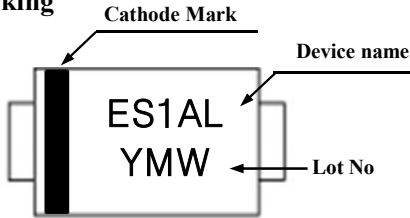


**Surface Mount Super Fast Recovery Rectifiers  
Reverse Voltage 50 to 600 Volts Forward Current 1.0 Ampere**
**Features**

- For surface mounted application
- Glass passivated chip junction
- Super fast reverse recovery time for high efficiency
- Fast switching for high efficiency
- High current capability
- High temperature soldering: 260°C/10 seconds at terminals

**Mechanical Data**

- Case : Molded plastic
- Terminals : Pure tin plated, lead free.
- Polarity : Indicated by cathode band
- Weight : 0.015 gram

**Marking**

**Maximum Ratings & Electrical Characteristics**

Ratings 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%

Parameter	Symbol	ES1AL	ES1BL	ES1CL	ES1DL	ES1FL	ES1GL	ES1HL	ES1JL	Unit	Remark
Maximum Repetitive 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	
Maximum Average Forward Rectified Current See Fig.1	$I_{F(AV)}$	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	$V_F$	0.95			1.3		1.7			V	$I_F=1A$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5.0								uA	$T_a=25^\circ C$
		100								uA	$T_a=100^\circ C$
Maximum Reverse Recovery Time	$t_{rr}$	35								nS	Note 1
Typical Junction Capacitance	$C_j$	10				8				pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	85								$^\circ C/W$	Note 3
	$R_{th(j-l)}$	35								$^\circ C/W$	
Operation Junction and Storage Temperature	$T_J, T_{STG}$	-55 to +150								$^\circ C$	

Note 1. Reverse Recovery Time Test Conditions :  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Measured on P.C.Board with 0.2" × 0.2" (5.0mm × 5.0mm) Copper Pad Areas.



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

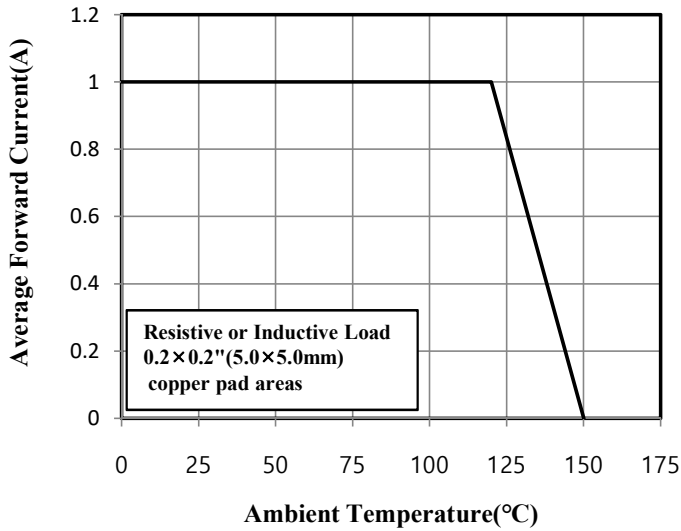


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

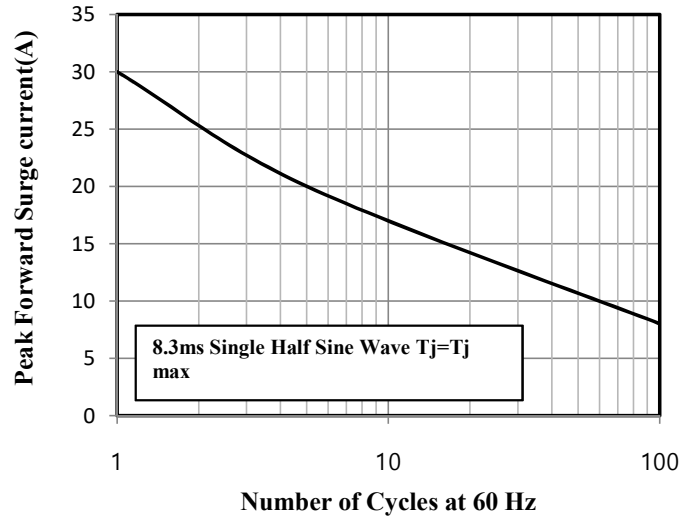


Fig.3 Typical Instantaneous Forward Characteristics

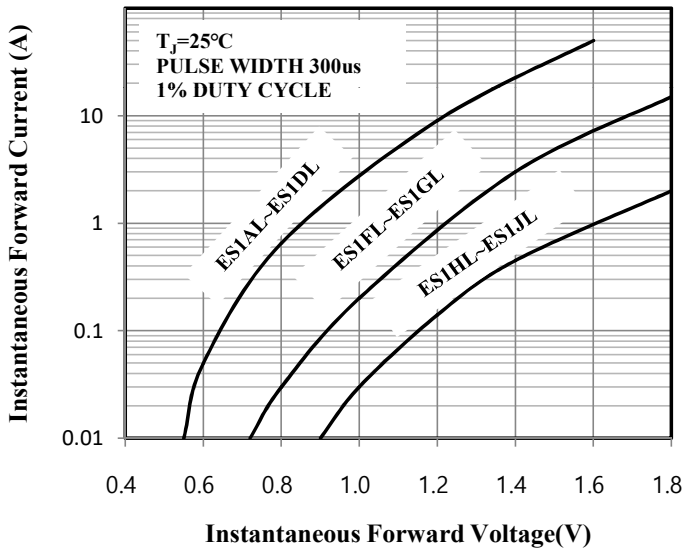


Fig.4 Typical Junction Capacitance

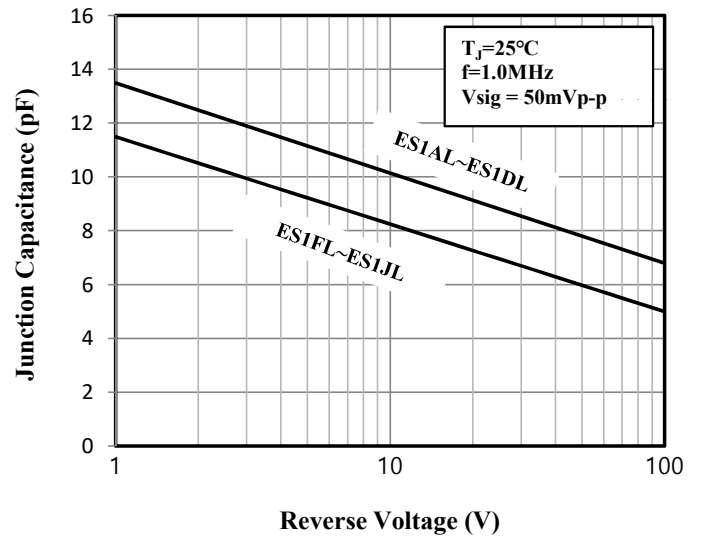


Fig.5 Typical Reverse Characteristics

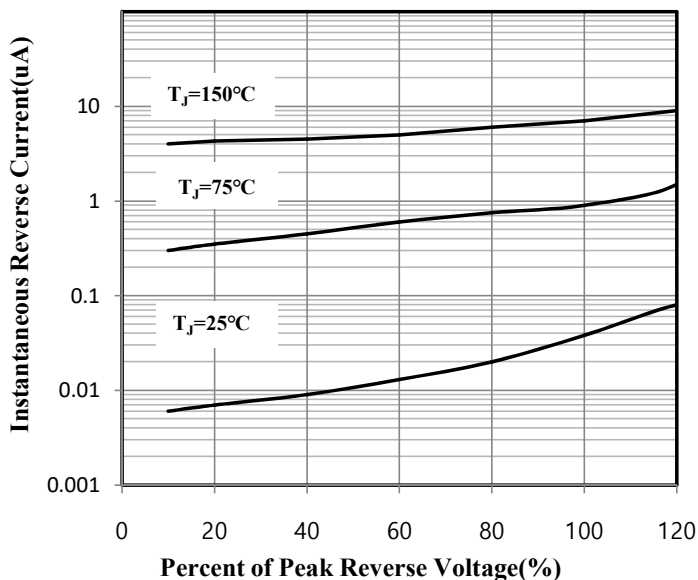


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

