



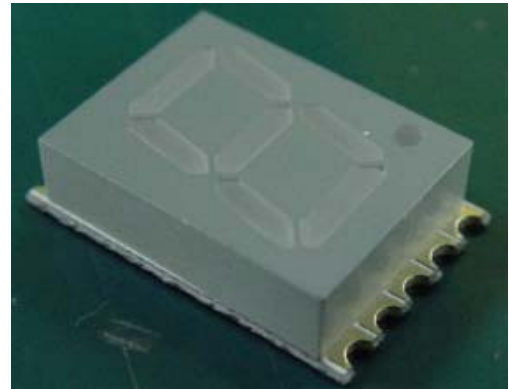
Technical Data Sheet

0.39" Single Digit SMD Displays

ELSS-406SURWA/S530-A4/S290

Features

- Packaged in tape and reel for SMT manufacturing.
- Design flexibility (common cathode or anode).
- Categorized for luminous intensity.
- The thickness is thinner than traditional display.
- Pb free



Descriptions

- The SMD type is much smaller than traditional type components, thus enabling smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.

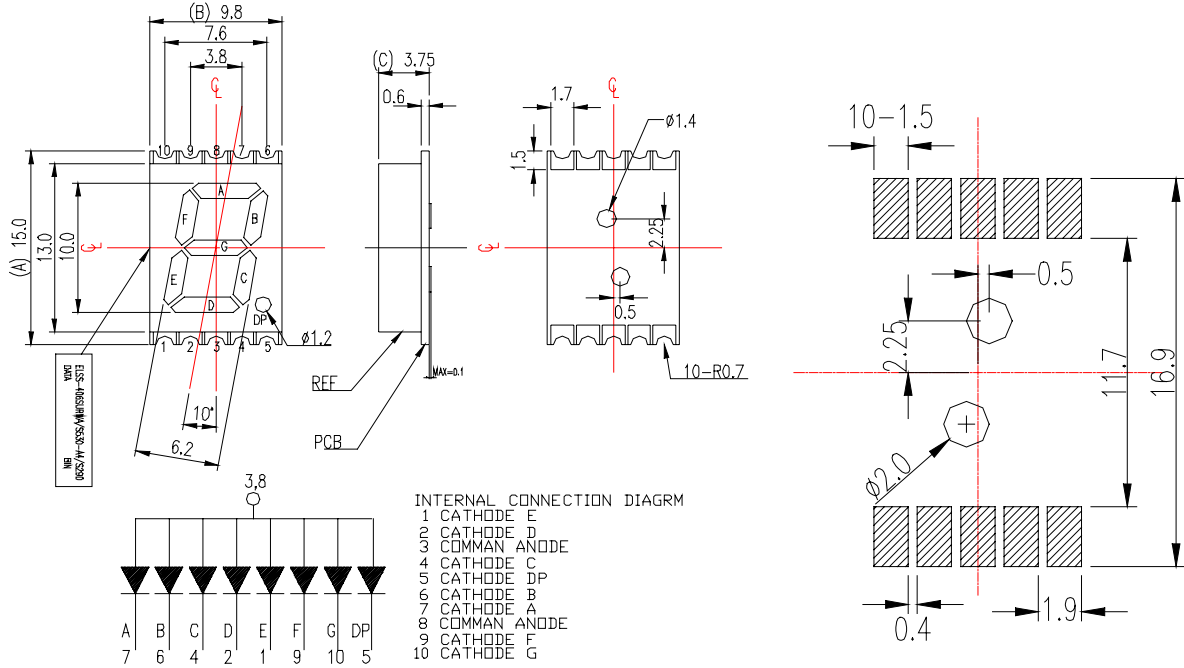
Applications

- Suitable for indoor use.
- Audio system.
- Set top box.
- Game machine.
- Channel indicator of TV.

Device Selection Guide

Chip		Face Color
Material	Emitted Color	
AlGaInP	Hyper Red	Gray

Package Dimensions



Notes:

- All dimensions are in millimeters, tolerance is 0.25mm unless otherwise noted.
- Above specification may be changed without notice. Supplier will reserve authority on material change for above specification.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Forward Current	I _F	25	mA
Pulse Forward Current ^{*1}	I _{FP}	160	mA
Operating Temperature	T _{opr}	-40 ~ +105	°C
Storage Temperature	T _{stg}	-40 ~ +105	°C
Soldering Temperature ^{*2}	T _{sol}	260	°C
Power Dissipation	P _d	60	mW
Reverse Voltage	V _R	5	V

Notes: *1:I_{FP} Conditions--Pulse Width ≤ 10msec and Duty ≤ 1/10.

*2:Soldering time ≤ 5 seconds.

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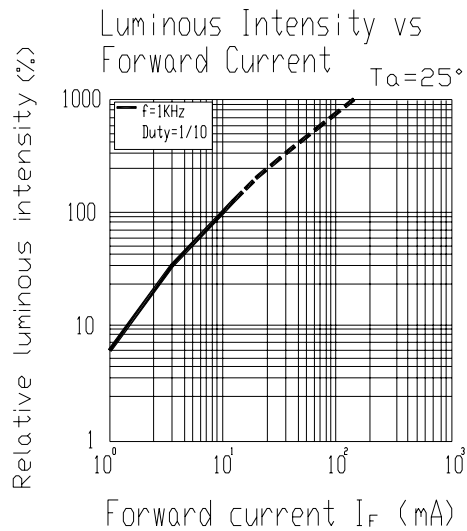
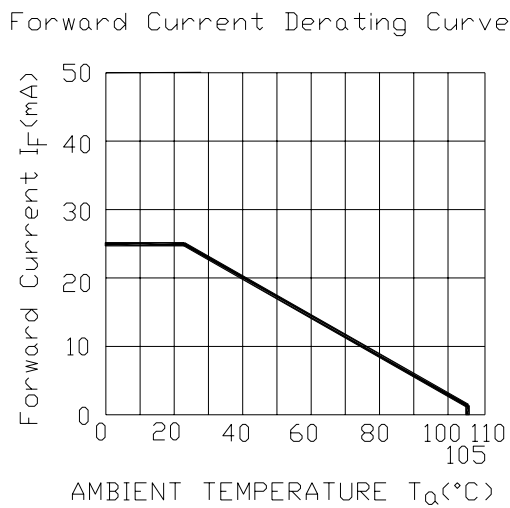
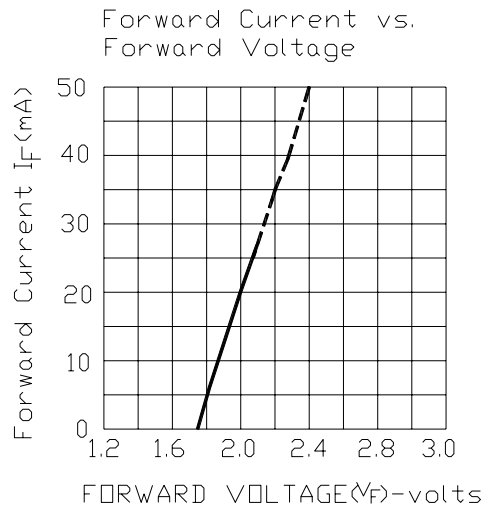
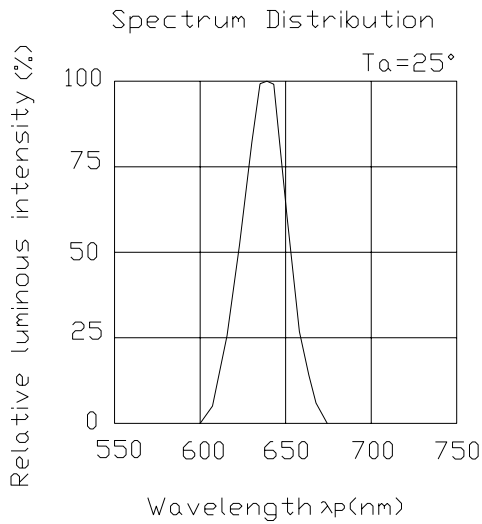
Electro-Optical Characteristics (Ta=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage		V_F	$I_F=20\text{mA}$	--	2.0	2.4	V
Reverse Current		I_R	$V_R=5\text{V}$	--	--	10	μA
Luminous Intensity	Per segment	I_V	$I_F=2\text{mA}$	--	2.0	--	mcd
			$I_F=10\text{mA}$	7.8	15.0		
	Per decimal point		$I_F=2\text{mA}$	--	0.5	--	
			$I_F=10\text{mA}$	2.0	4.0		
Peak Wavelength		λ_p	$I_F=20\text{mA}$	--	632	--	nm
Dominant Wavelength		λ_d	$I_F=20\text{mA}$	--	624	--	nm
Spectrum Radiation Bandwidth		$\Delta\lambda$	$I_F=20\text{mA}$	--	20	--	nm

Chromaticity Coordinates Specifications for Bin Grading (Unit: mcd)

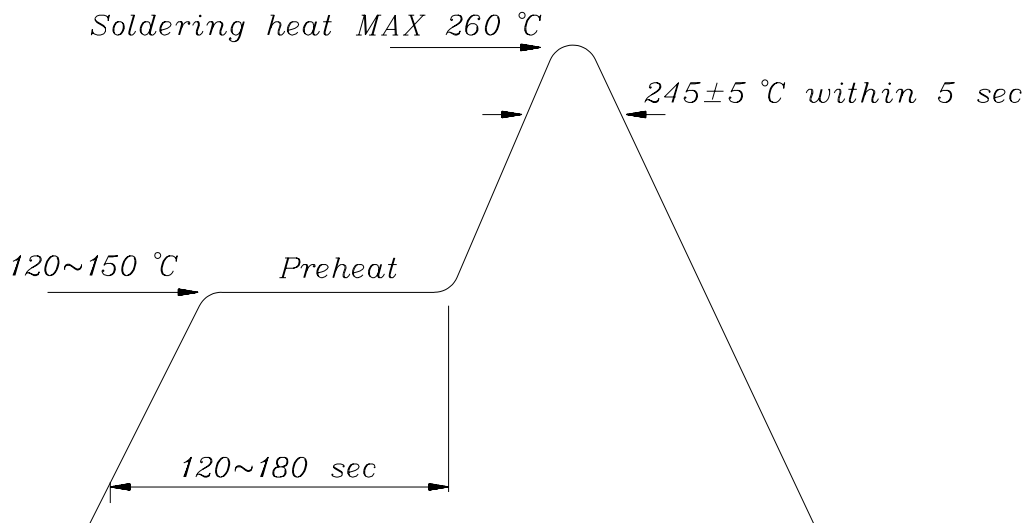
Rank	Min.	Max.	Rank	Min.	Max.
Q	7.8	12.5	T	21	34
R	11.0	17.6	U	30	48
S	15.0	24.0	--	--	--

Typical Electro-Optical Characteristics Curves



■ Soldering heat reliability (DIP) :

Please refer to the following figure :

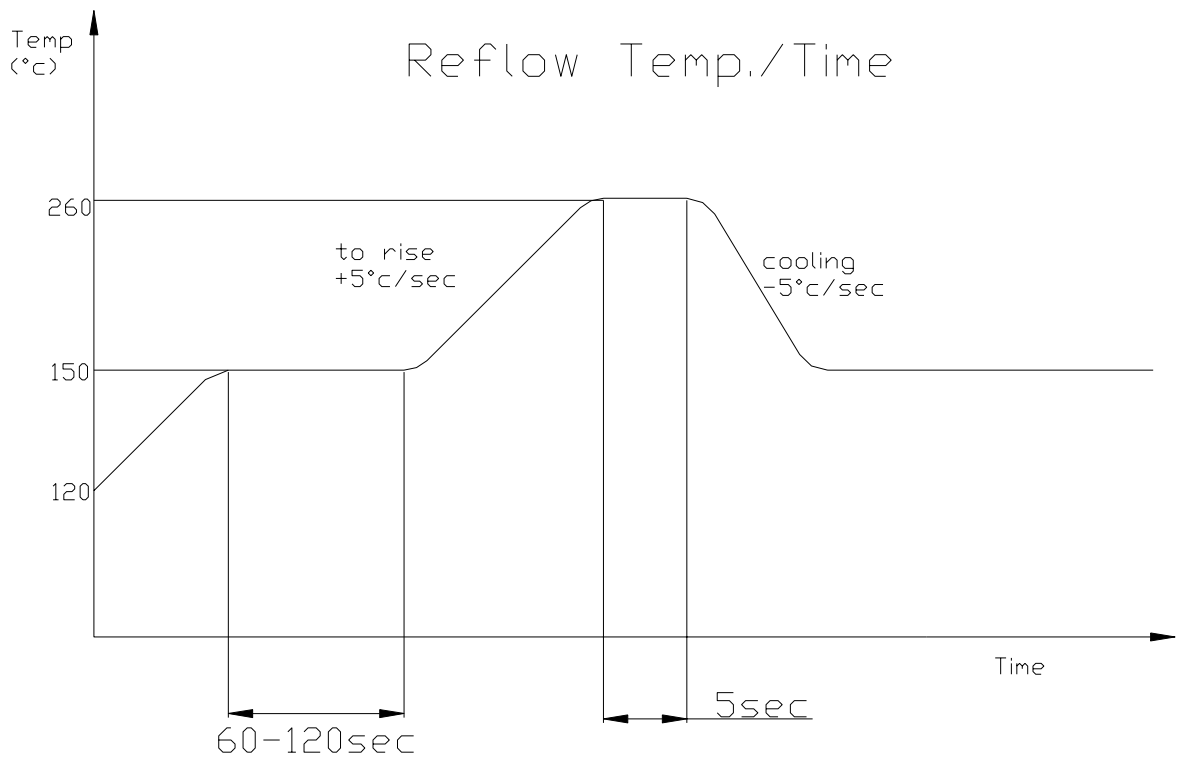
**■ Soldering Iron :**

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under 230 °C .

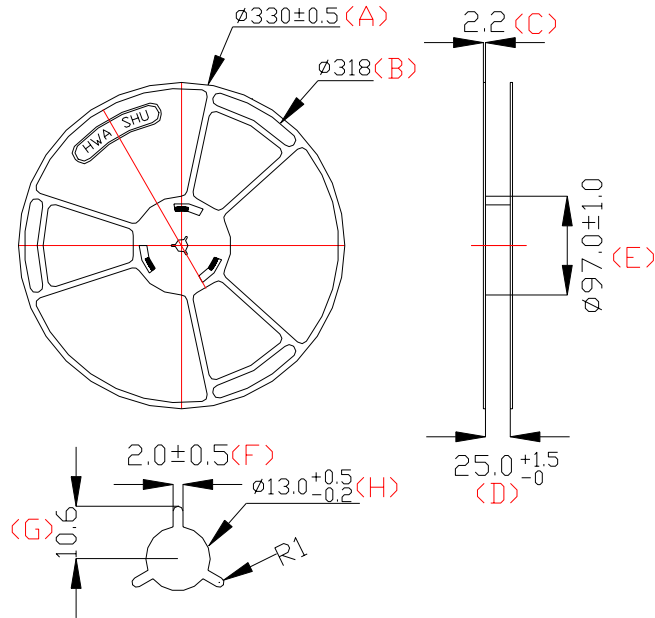
■ Rework :

1. Customer must finish rework within 5 sec under 260°C .
2. The head of iron can not touch copper foil.

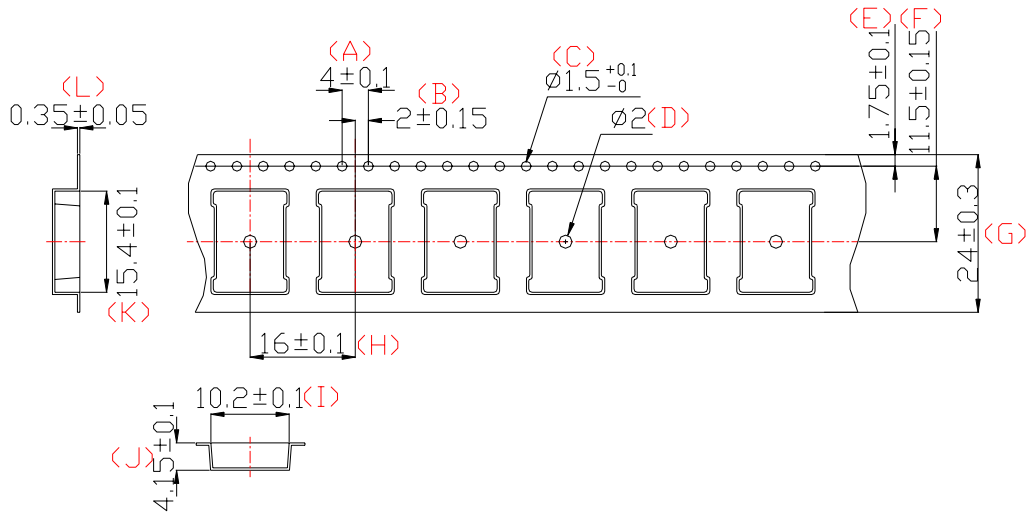
■ Reflow Temp. / Time :



Package Dimensions



Taping Dimensions





ELSS-406SURWA/S530-A4/S290

Packing Quantity Specification

1000PCS/Roll , 7Rolls/Box

Label Form Specification

EVERLIGHT ●

CPN :
P/N : 4U406E0023



SS406SURWA/S530-A4/S290

QTY : CAT :
 HUE :
 REF :

LOT NO :



CPN: Customer's Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks
HUE: SMD Provider
REF: Reference
LOT No: Lot Number

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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