imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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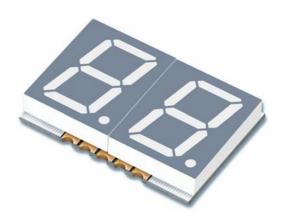


Technical Data Sheet 0.51'' Dual Digit SMD Displays

Features

- Packaged in tape and reel for SMT manufacturing.
- Design flexibility(common cathode or anode).
- Categorized for luminous intensity.
- The thickness is thinness than tradition display.
- Pb free
- The product itself will remain with RoHS compliant version.

ELSD-506SYGWA/S530-E2



Descriptions

• The SMD type is much smaller than tradition type components, thus enable 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	Brilliant Yellow Green	Gray

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Device No.: CDGD-506-004



Land Pattern(Recommend) 24.5 12.25 12.25 10.16 ø1.5 -2.20 5.08 Ø1.60 2.65 17.5 0.05-0.05 <u>> 10−R0.7</u> 12.25 REF -2.54 PCB < CONNECTION DIAGRM INTE CATHODE G CATHODE DP CATHODE A CATHODE F 1234567 ANDDE D2 ANDUE DE D E C B ANODE D1 CATHODE CATHODE / 8 9 10

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}	60	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
Soldering Temperature ^{*2}	T _{sol}	260	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	100	mW
Reverse Voltage	Vr	5	V

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

*2:Soldering time \leq 5 seconds.

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Parameter		Symbol	Min.	Тур.	Max.	Units	Condition
Forward V	oltage	V_{F}		2.1	2.4	V	I _F =10mA
Reverse Cu	ırrent	I _R			10	μ A	V _R =5V
Luminous Intensity	Per segment	I _V	5.6	9.5		mcd	I _F =10mA
	Per decimal point		2.0	4.3			
Peak Wavelenght		λp		575		nm	I _F =10mA
Dominant Wavelenght		λd		573		nm	I _F =10mA
Spectrum Radiation Bandwidth		$ riangle \lambda$		20		nm	I _F =10mA

Electro-Optical Characteristics (Ta=25°C)

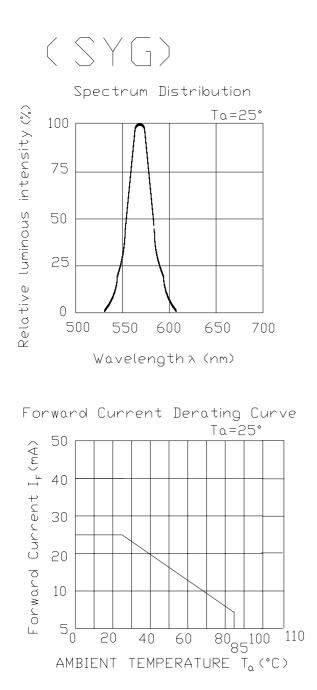
Chromaticity Coordinates Specifications for Bin Grading (Unit: mcd)

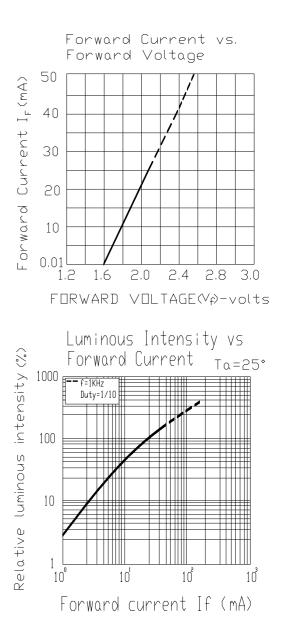
Rank	Min.	Max.	Rank	Min.	Max.
Р	5.6	8.9	S	15.0	24.0
Q	7.8	12.5	Т	21.0	34.0
R	11.0	17.6			

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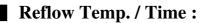
Typical Electro-Optical Characteristics Curves

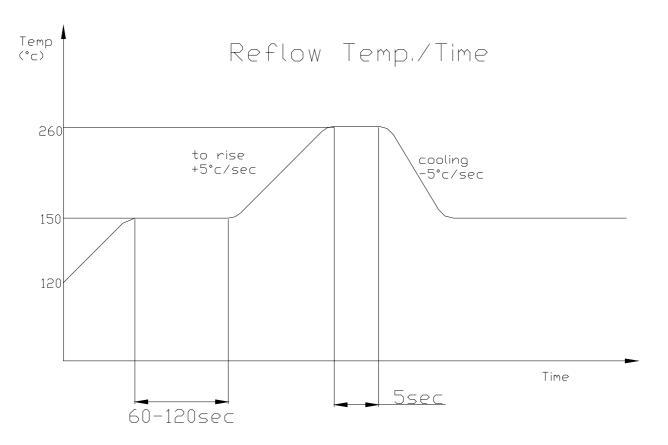




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Soldering Iron :

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C \rightarrow -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.

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Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below. Confidence level : 97%

LTPD: 3%

NO	Item	Test	Test	Sample	Failure Judgment	Ac/Re
		Conditions	Hours/Cycle	Size	Criteria	
1	Reflow	TEMP:26 0°C±5°C	5 SEC	76 PCS		0/1
		H ∶+100°C 15min				
2	Temperature	∫ 5min	300 CYCLES	76 PCS		0/1
	Cycle	L:-40°C 15min				
		H∶+100°C 5min				
3	Thermal	§ 10 sec	300 CYCLES	76 PCS		0/1
	Shock	L∶-10°C 5min				
	High				Iv≦Ivt*0.5	
4	Temperature	TEMP:100°C	1000 HRS	76PCS	or Vf≧U	0/1
	Storage				or	
	Low				Vf≦L	
5	Temperature	TEMP:-40°C	1000 HRS	76 PCS		0/1
	Storage				-	
6	DC Operating	TEMP:25°C	1000 HRS	76 PCS		0/1
	Life	If = 10mA				
	High					
7	Temperature /	85°C / 85% RH	1000 HRS	76 PCS		0/1
	High					
	Humidity					

Note : Ivt : The test Iv value of the chip before the reliablility test

- Iv : The test value of the chip that has completed the reliablility test
- U: Upper Specification Limit
- L: Lower Specification Limit

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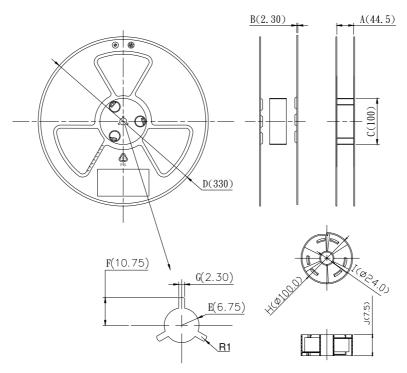
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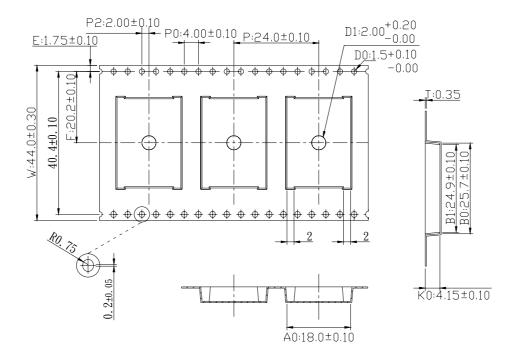
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Package Dimensions



Taping Dimensions



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Packing Quantity Specification

500PCS/Roll , 4Rolls/Box

Label Form Specification



ELSD-506SYGWA/S530-E2

CPN: Customer's Production Number P/N : Production Number QTY: Packing Quantity CAT: Ranks HUE: Peak Wavelength REF: Reference LOT No: Lot Number DC: Year and weekly

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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