



Opto Plus LED Corp.
0.50" Case Mold Type LED Display
OPD-AS5010YG-GW
OPD-AS5011YG-GW

● **EDIT HISTORY**

Version A : Mar. 20, 2015

Preliminary Spec.

Manufacture	Examination	Approving



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OPD-AS5011YG-GW

● **FEATURES**

- 0.50 inch (12.70 mm) Digit Height.
- Low current operation.
- Case mold type.
- Gray face, White segment.
- RoHS compliant, Pb Free.

● **DESCRIPTION**

The OPD-AS5010YG-GW & OPD-AS5011YG-GW is a 0.50 inch (12.70 mm) height alphanumeric display.

This device utilizes Super Bright Yellow Green LED chip which are made from AlGaInP on a transparent GaAs substrate.

The display has Gray face, White segment.

● **DEVICE**

PART NO	DESCRIPTION
Super Bright Yellow Green	
OPD-AS5010YG-GW	Common Anode
OPD-AS5011YG-GW	Common Cathode

RoHS Compliance



Pb free.





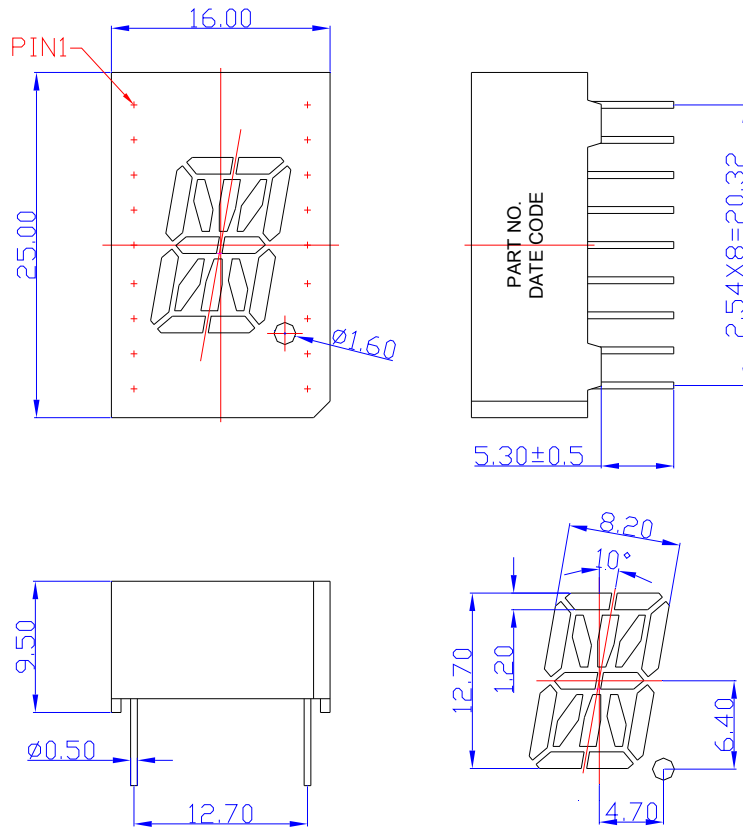
Opto Plus LED Corp.

0.50" Case Mold Type LED Display

OPD-AS5010YG-GW

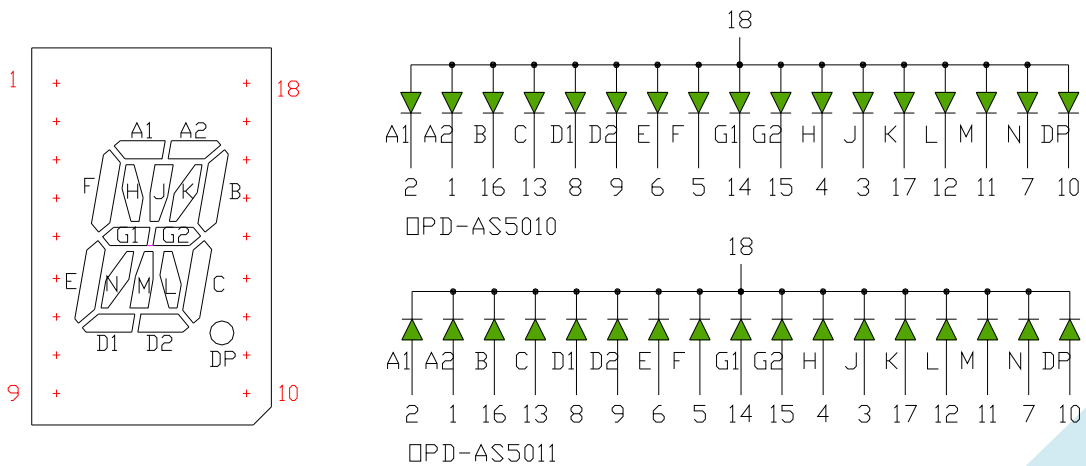
OPD-AS5011YG-GW

MECHANICAL DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise noted.

TYPICAL INTERNAL EQUIVALENT CIRCUIT





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● **YG: SUPER BRIGHT YELLOW GREEN (AlGaInP/GaAs)**

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Super Bright Yellow Green	Unit
Power dissipation per dice	P _{AD}	85	mW
Derating liner from 25°C per dice	-	0.42	mA / °C
Continuous forward current per dice	I _{AF}	30	mA
Peak current per dice (duty cycle 1/10, 1kHz)	I _{PF}	120	mA
Reverse voltage per dice	V _R	5	V
Operating temperature	T _{OPR}	-25 to +85	°C
Storage temperature	T _{STG}	-25 to +85	°C

ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V _F	I _F =20mA	-	2.0	2.6	V
Reverse current	I _R	V _R =5V	-	-	10	μA
Peak wavelength	λ _P	I _F =20mA	-	573	-	nm
Dominant wavelength	λ _D	I _F =20mA	566	571	574	nm
Luminous intensity	I _v	I _F =20mA	-	15	-	mcd
Spectral radiation bandwidth	Δλ	I _F =20mA	-	20	-	nm



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● YG: SUPER BRIGHT YELLOW GREEN (AlGaInP/GaAs) CURVE

Typical Electro-optical Characteristic Curves
(25 °C Free Air Temperature Unless Otherwise Specified)

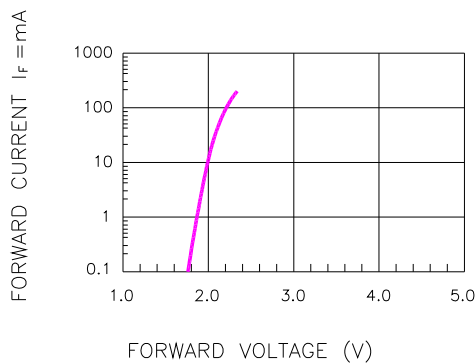


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

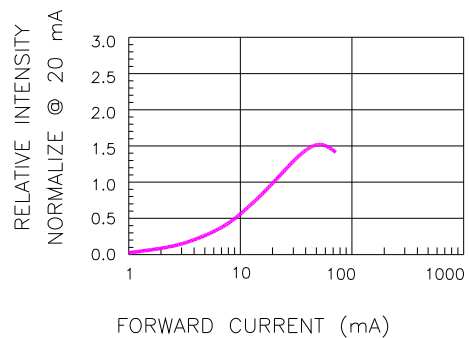


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

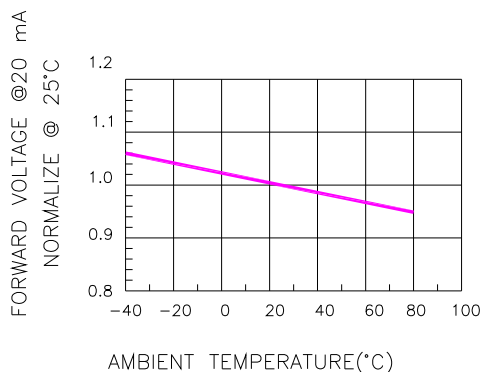


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

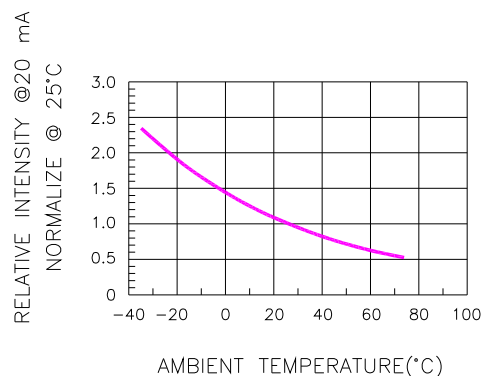


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

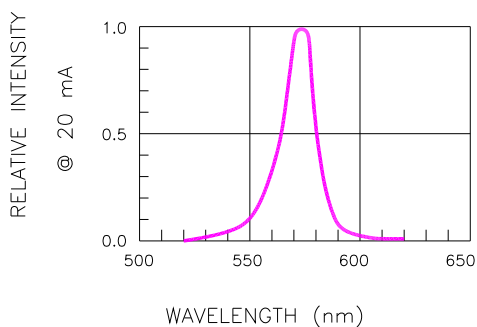


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

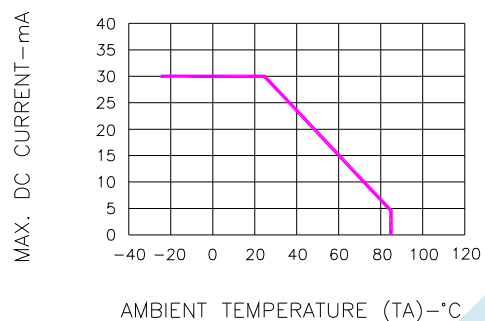
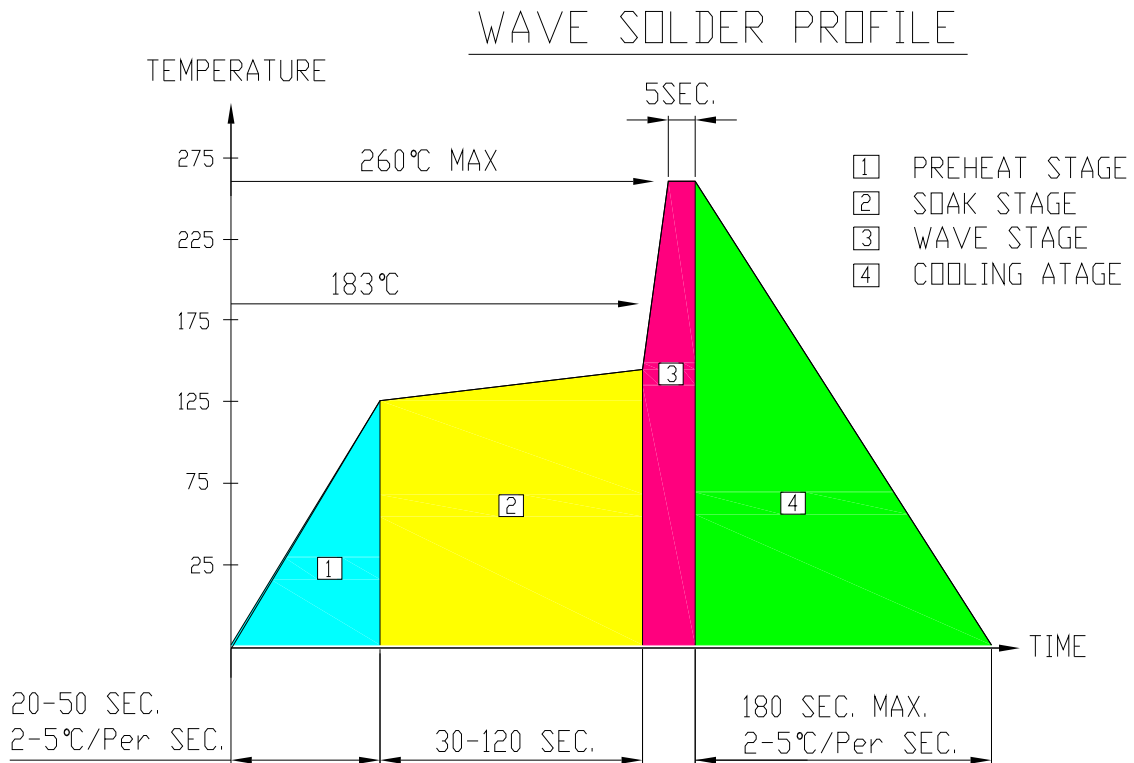


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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● **RECOMMEND SOLDERING PROFILE**



● **SOLDERING IRON**

Basic spec is ≤ 4 sec when 260°C. If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

● **REWORK**

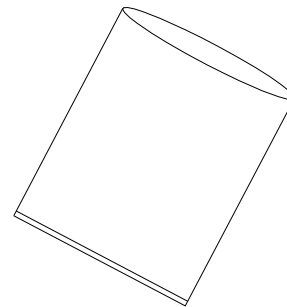
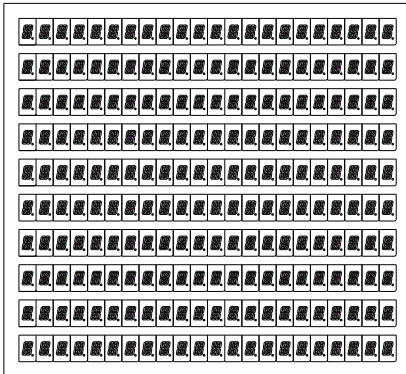
Customer must finish rework within ≤ 4 sec under 245°C.



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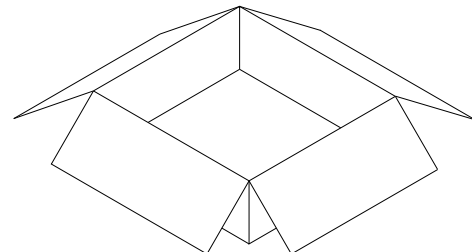
● **PACKAGE DIMENSIONS**

220 PCS (22 x 10 PCS) / 1 White Polyform



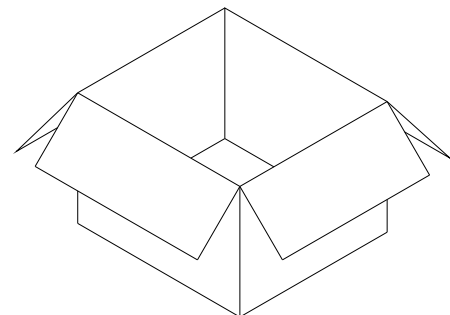
BAG SIZE :450X410X560

5 White Polyform / 1 BAG
1100 PCS /1Inner Carton



INNER BOX SIZE : 394 x 370 x 138 mm

2200 PCS / 2 Inner Carton / 1 Outer Carton



OUTER BOX SIZE : 430 x 390 x 300 mm