



American Opto Plus LED Corp.
0.56" Case mold Type LED Display
A561E G/W
C561E G/W

● **EDIT HISTORY**

Version A : Apr. 18, 2014

Preliminary Spec.

Manufacture	Examination	Approving



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● **FEATURES**

- 0.56 inch (14.20 mm) Digit Height.
- Excellent character appearance.
- Case mold type.
- Low Power Consumption.
- Gray face, White segment.
- RoHS compliant, Pb Free.

● **DESCRIPTION**

The A561E G/W & C561E G/W is a 0.56 inch (14.20 mm) height single 7-segment display. This device utilizes High Efficiency Red LED chip which are made from GaAsP on a transparent GaP substrate. The display has Gray face, White segment.

● **DEVICE**

PART NO	DESCRIPTION
High Efficiency Red	
A561E G/W	Common Anode
C561E G/W	Common Cathode

RoHS Compliance



Pb free.





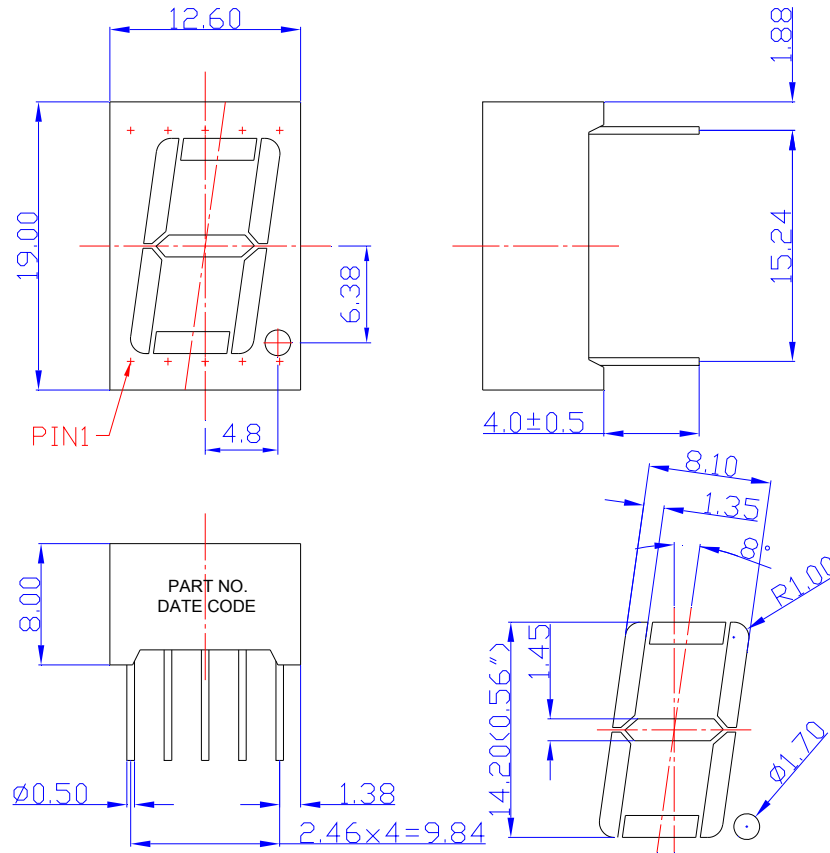
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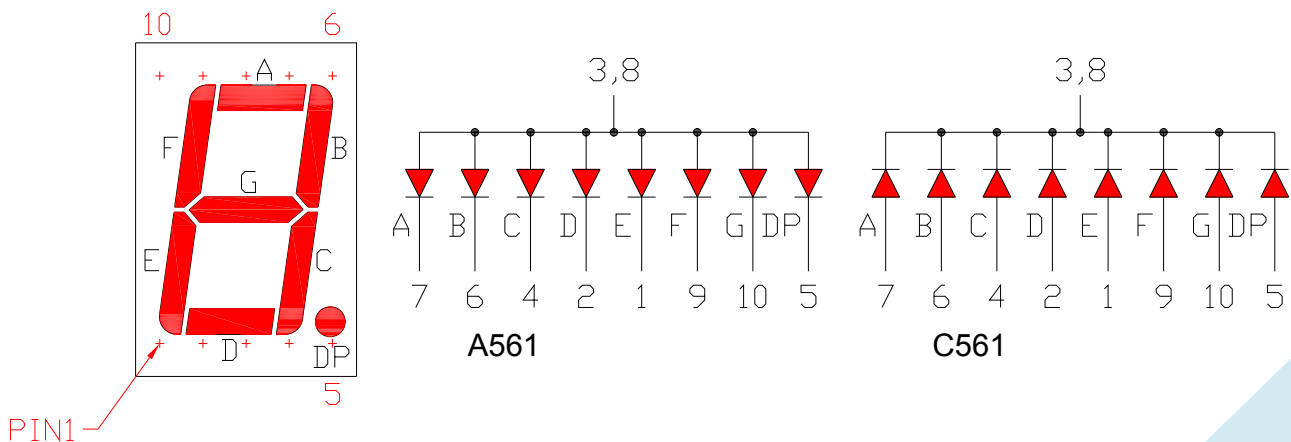
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● MECHANICAL DIMENSIONS



● TYPICAL INTERNAL EQUIVALENT CIRCUIT





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● **E: RED (GaAsP/GaP)**

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Red	Unit
Power dissipation per dice	P _{AD}	70	mW
Derating Liner from 25°C per dice	-	0.33	mA/°C
Continuous forward current per dice	I _{AF}	25	mA
Peak current per dice (duty cycle 1/10, 1kHz)	I _{PF}	90	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.	Type	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	-	632	-	nm
Dominant wavelength	λ _d	I _F =20mA	-	620	-	nm
Luminous intensity	I _V	I _F =20mA	-	10	-	mcd
Spectral radiation bandwidth	Δλ	I _F =20mA	-	35	-	nm



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● E: RED (GaAsP/GaP) CURVE

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

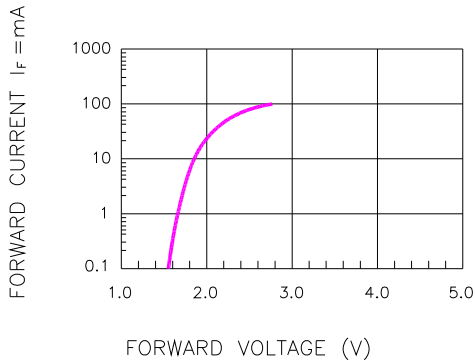


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

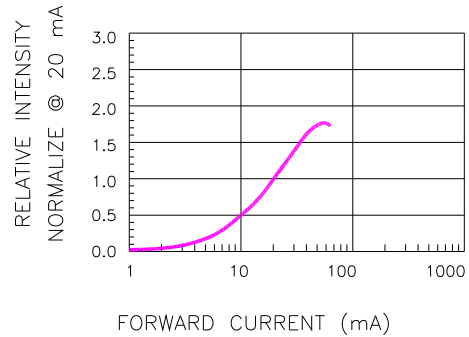


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

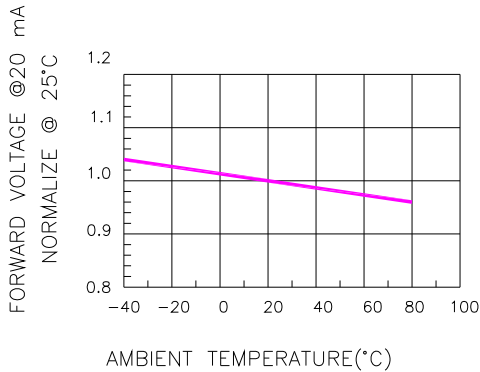


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

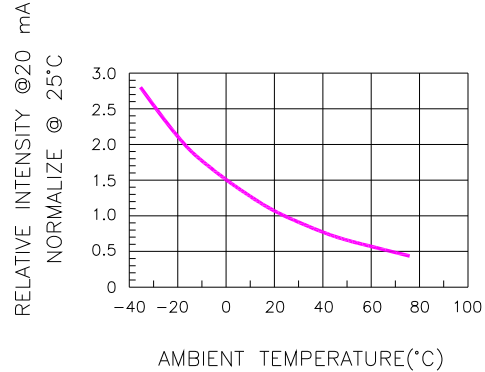


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

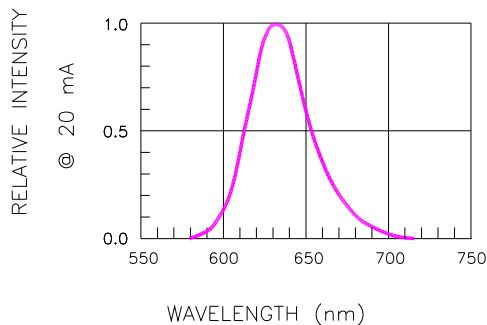


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

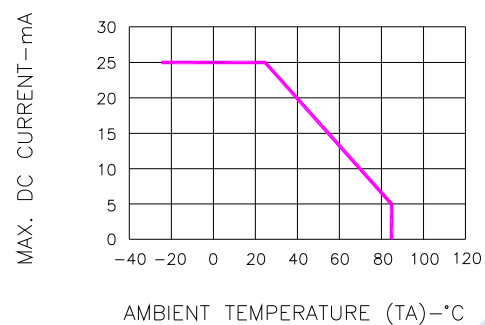
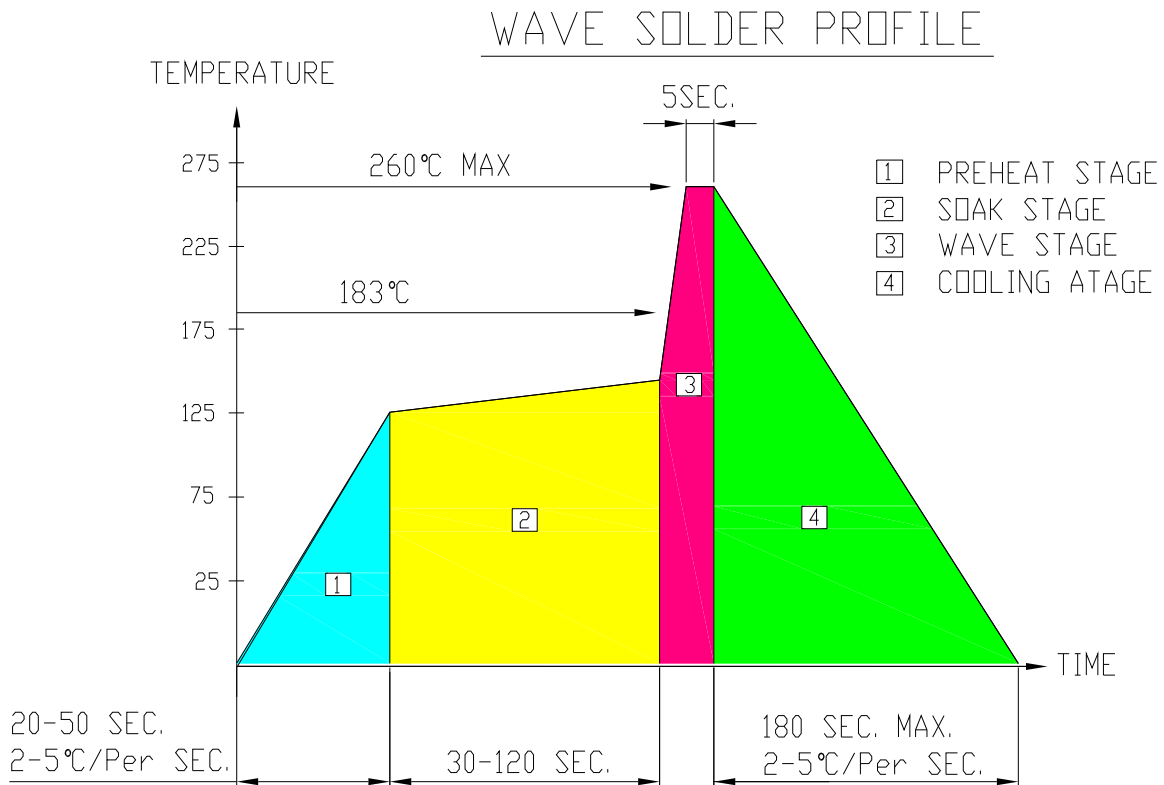


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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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.