



American Opto Plus LED Corp.
0.56" Case mold Type LED Display
A561SR-5 G/W
C561SR-5 G/W

● **EDIT HISTORY**

Version A : Dec. 04, 2013

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 A561SR-5 G/W & C561SR-5 G/W is a 0.56 inch (14.20 mm) height single 7-segment display.

This device utilizes Super Red LED chip which are made from AlGaAs on a transparent GaAs substrate. The display has Gray face, White segment

● **DEVICE**

PART NO	DESCRIPTION
Super Red	
A561SR-5 G/W	Common Anode
C561SR-5 G/W	Common Cathode

RoHS Compliance



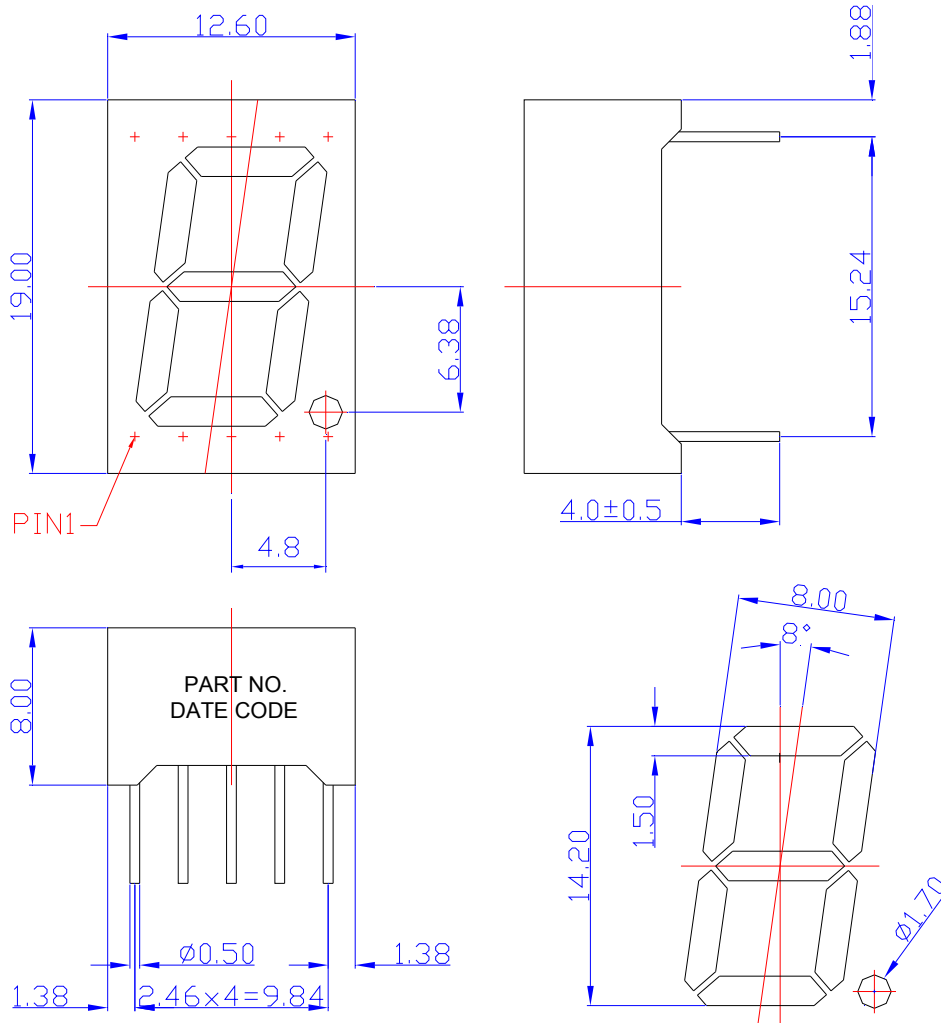
Pb free.



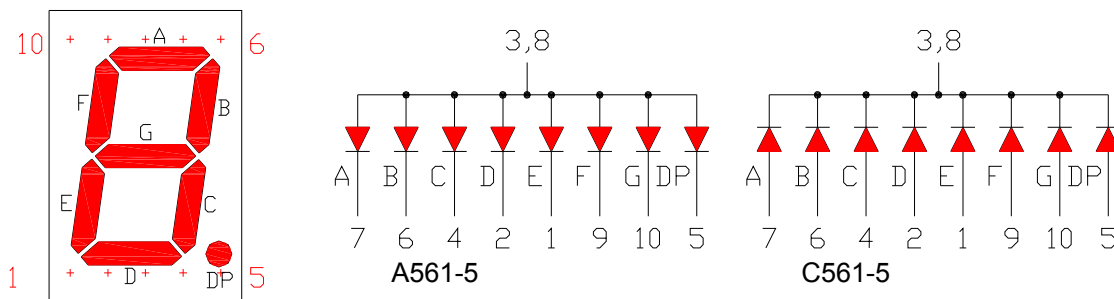


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● **MECHANICAL DIMENSIONS**



● **TYPICAL INTERNAL EQUIVALENT CIRCUIT**





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● **SR: SUPER RED (AlGaAs/GaAs,SH)**

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Super Red	Unit
Power dissipation per dice	P _{AD}	75	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}	200	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	-	1.8	2.6	V
Reverse Current	I _R	V _R =5V	-	-	10	μA
Peak Wavelength	λ _P	I _F =20mA	-	655	-	nm
Dominant Wavelength	λ _d	I _F =20mA	-	644	-	nm
Average Luminous Intensity	I _V	I _F =20mA	-	6	-	mcd
Spectrum Radiation Bandwidth	Δλ	I _F =20mA	-	20	-	nm



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● SR: SUPER RED (AlGaAs/GaAs, SH)

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

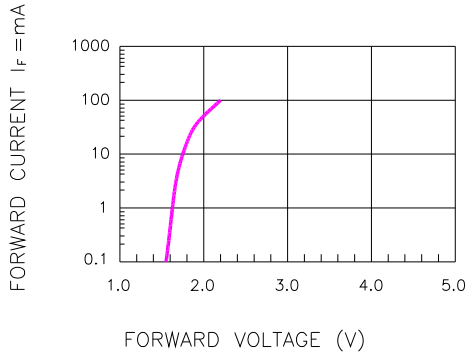


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

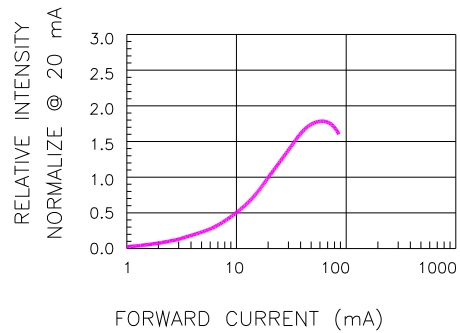


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

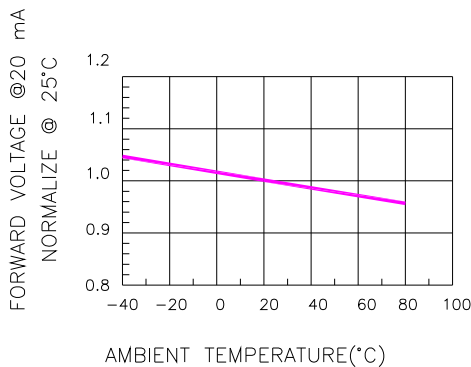


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

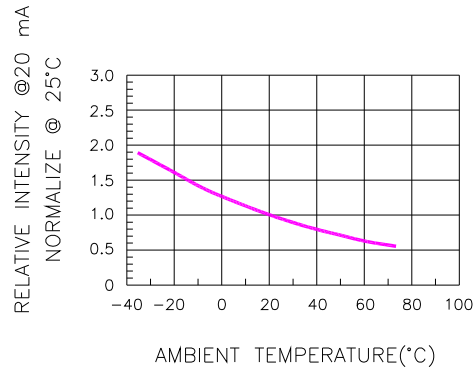


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

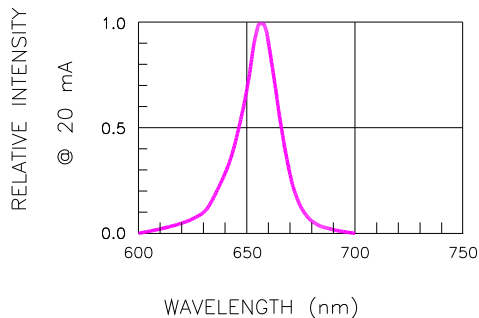


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

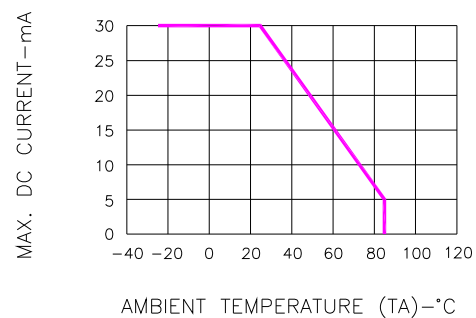
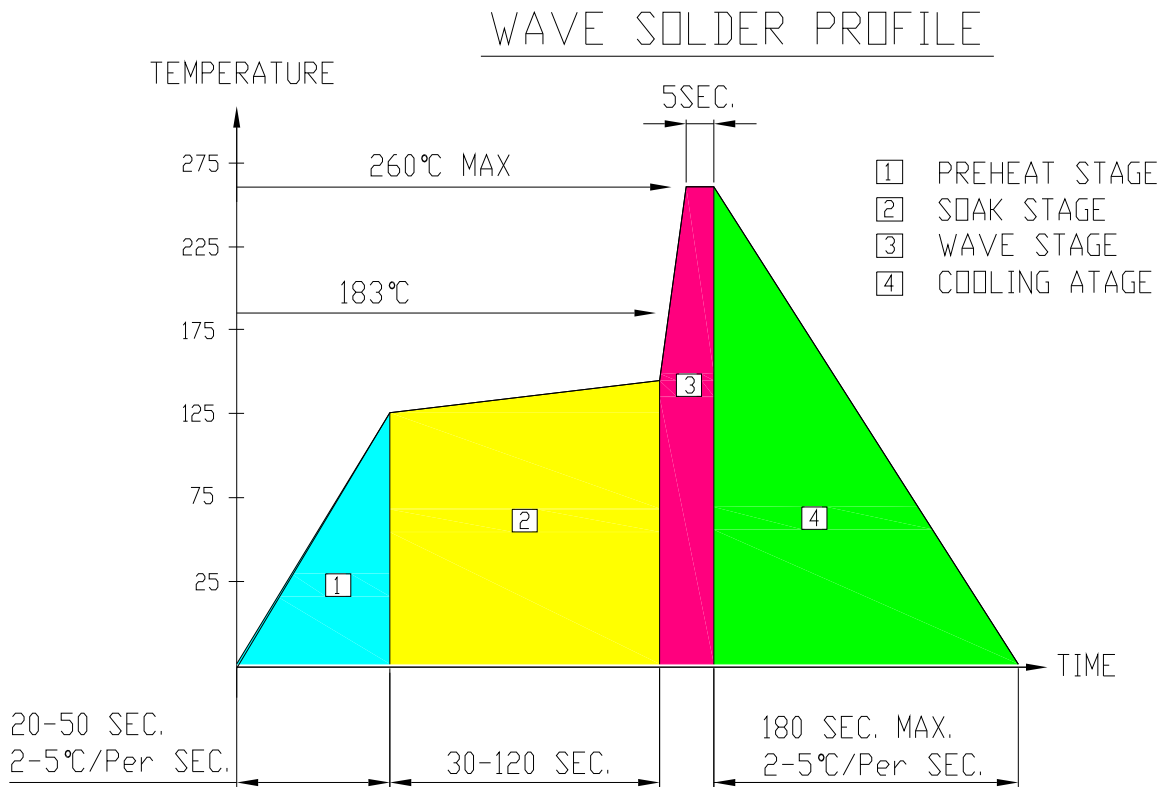


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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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.