



Opto Plus LED Corp.

0.56" Case Mold Type LED Display

OPD-T5620SR-BW

● EDIT HISTORY

Version 1 : Feb. 09, 2015

New color data sheet.

Version 2(B) : Mar. 08, 2023

Modify Electrical Character & Curve (P5,P6)

Modify package dimensions.

Prepared by	Checked by	Approved by



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0.56" Case Mold Type LED Display
OPD-T5620SR-BW

● **EDIT HISTORY**

Version A : OCT. 06, 2010

New color data sheet.

Version B : Mar. 08, 2022

Modify Electrical Character & Curve (P5,P6)



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● FEATURES

- 0.56 inch (14.20 mm) Digit Height.
- Low current operation.
- Case mold type.
- Black face, White segment.
- RoHS compliant, Pb Free.

● DESCRIPTION

The OPD-T5620SR-BW is a 0.56 inch (14.20 mm) height triple digits display. This device utilizes Super Red LED chip which are made from AlGaAs on a transparent GaAs,SH substrate. The display has Black face, White segment.

● DEVICE

PART NO Super Red	DESCRIPTION
OPD-T5620SR-BW	Common Anode

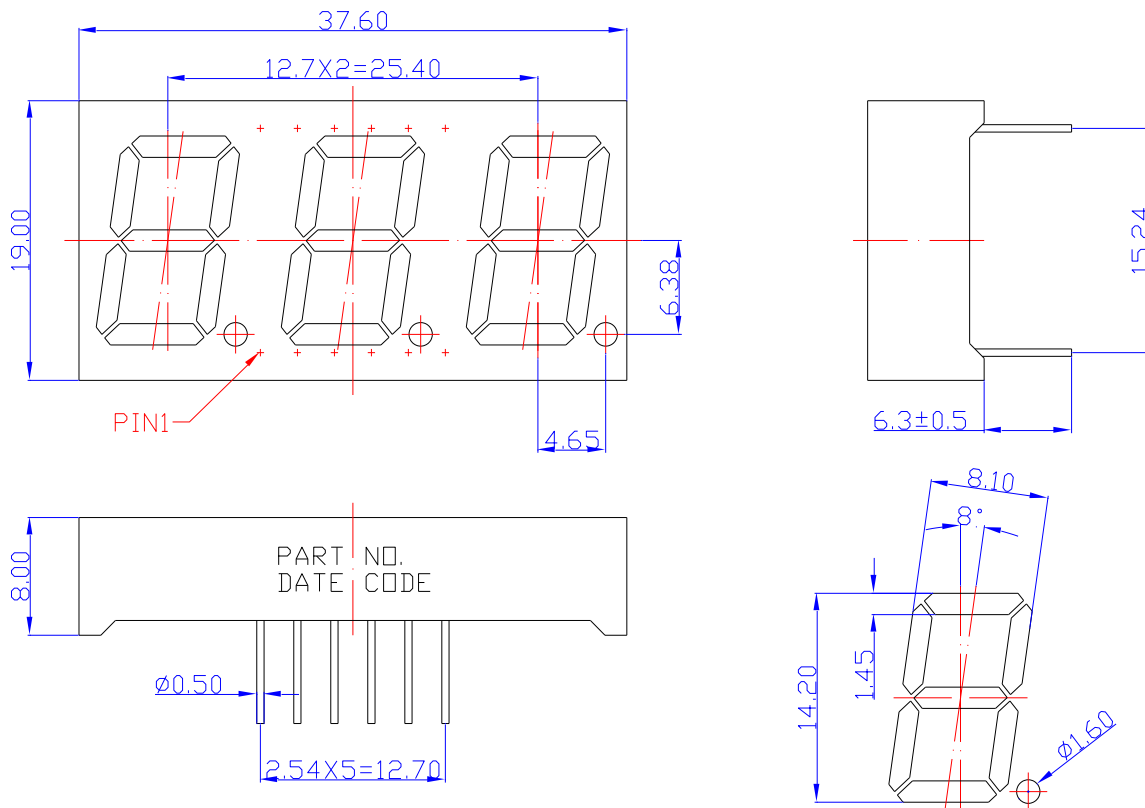
RoHS Compliance



Pb free.

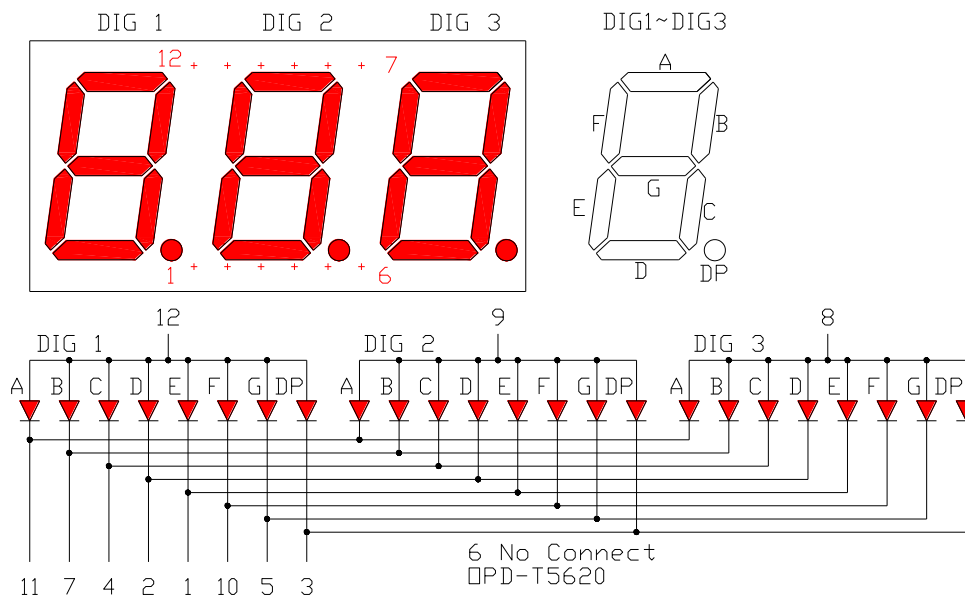


MECHANICAL DIMENSIONS



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

TYPICAL INTERNAL EQUIVALENT CIRCUIT





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● SR: SUPER RED (AlGaAs/GaAs,SH)

ABSOLUTE MAXIMUM RATING AT $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Maximum Rating	Unit
Power dissipation	P_{AD}	48	mW
Continuous forward current	I_{AF}	20	mA
Peak current (duty cycle 1/10, 1kHz)	I_{PF}	40	mA
Reverse voltage	V_R	5	V
Operating temperature	T_{OPR}	-40 to +85	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-40 to +85	$^{\circ}\text{C}$

ELECTRICAL - OPTICAL CHARACTERISTICS AT $T_a=25^{\circ}\text{C}$

Characteristic	Symbol	Condition	Min.	Type.	Max.	Unit
Forward Voltage	V_F	$I_F=20\text{mA}$	-	1.8	2.2	V
Reverse Current	I_R	$V_R=5\text{V}$	-	-	10	μA
Peak Wavelength	λ_P	$I_F=20\text{mA}$	-	655	-	nm
Dominant Wavelength	λ_D	$I_F=20\text{mA}$	-	644	-	nm
Luminous Intensity	I_V	$I_F=20\text{mA}$	-	8	-	mcd
Spectral Line Half-Bandwidth	$\Delta\lambda$	$I_F=20\text{mA}$	-	20	-	nm



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● SR: SUPER RED (AlGaAs/GaAs,SH) CURVE

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

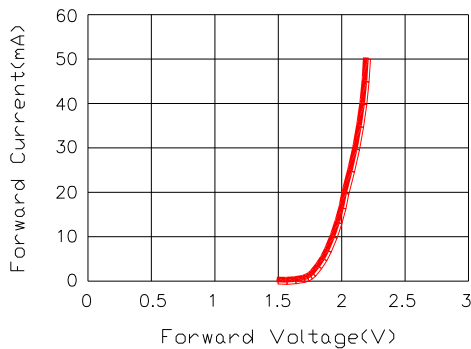


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

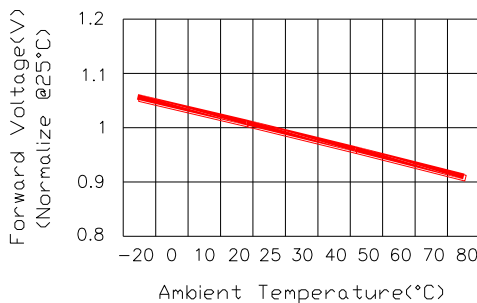
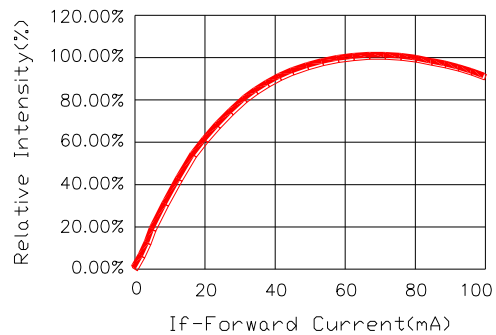


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

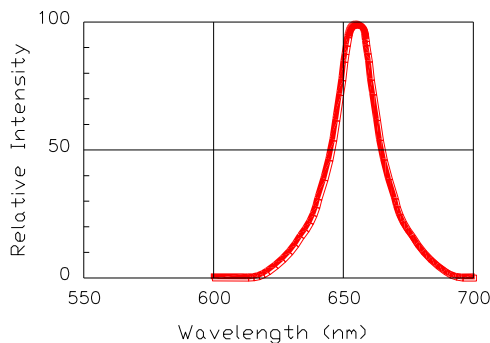
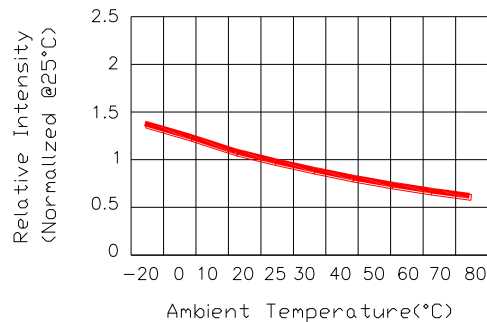


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

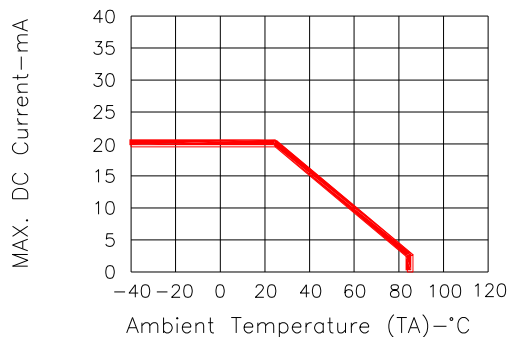
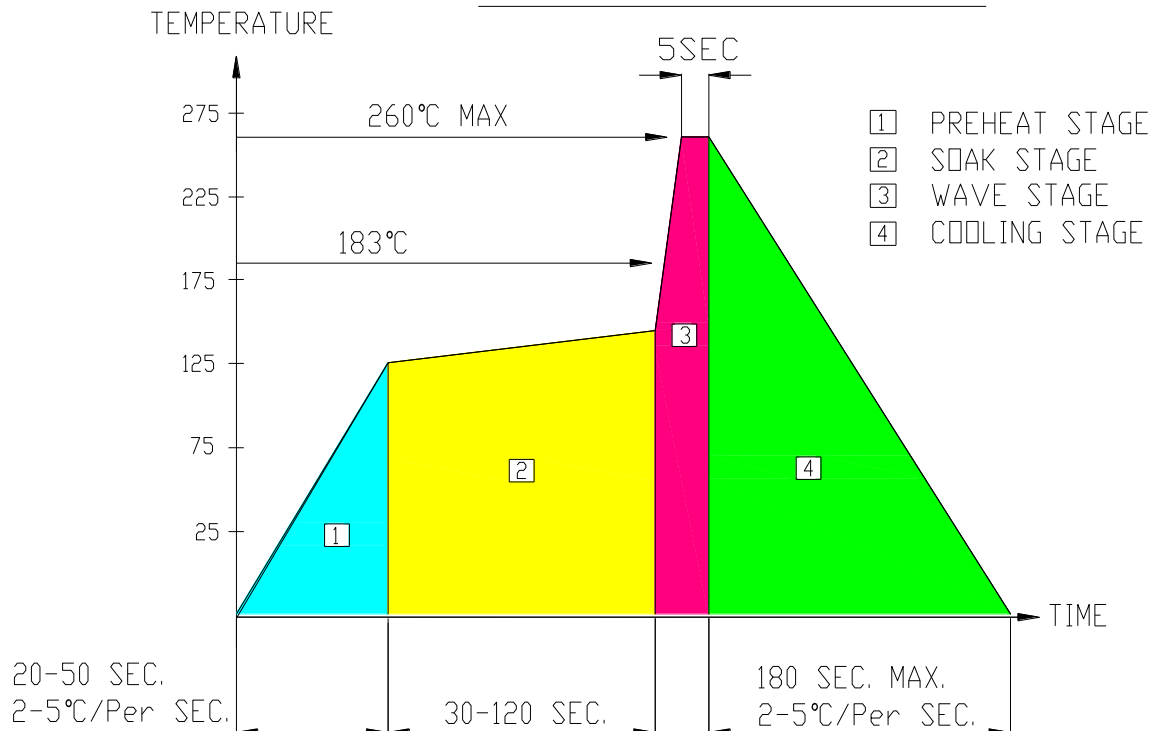


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

● RECOMMEND SOLDERING PROFILE

WAVE SOLDER PROFILE



● Note:

- Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
- Peak wave soldering temperature between 245°C ~ 225°C for 3 sec (5 sec max)
- No more than one wave soldering pass

● 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 ≤ 3 sec under 350°C.
The head of soldering iron cannot touch copper foil.



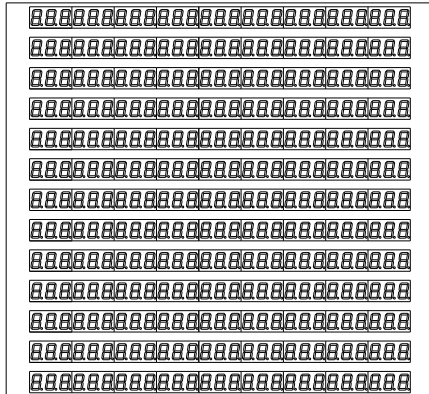
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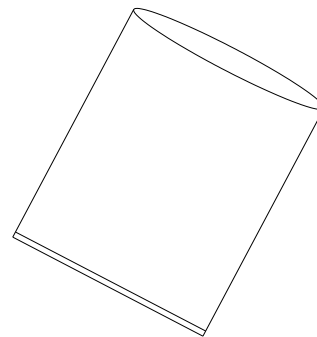
OPD-T5620SR-BW

● PACKAGE DIMENSIONS

117 PCS / (9X13) White Polyform .

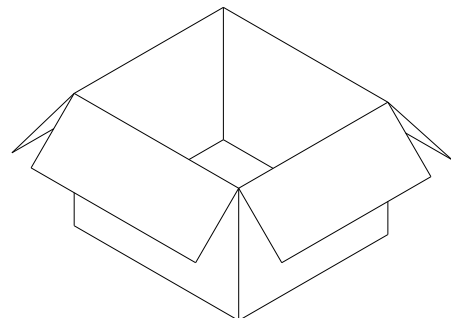


13 White Polyform / 1 BAG



BAG SIZE : 450X410X760

1521 PCS /1 OUTER CARTON



OUTER BOX SIZE : 430 x 390 x 300 mm