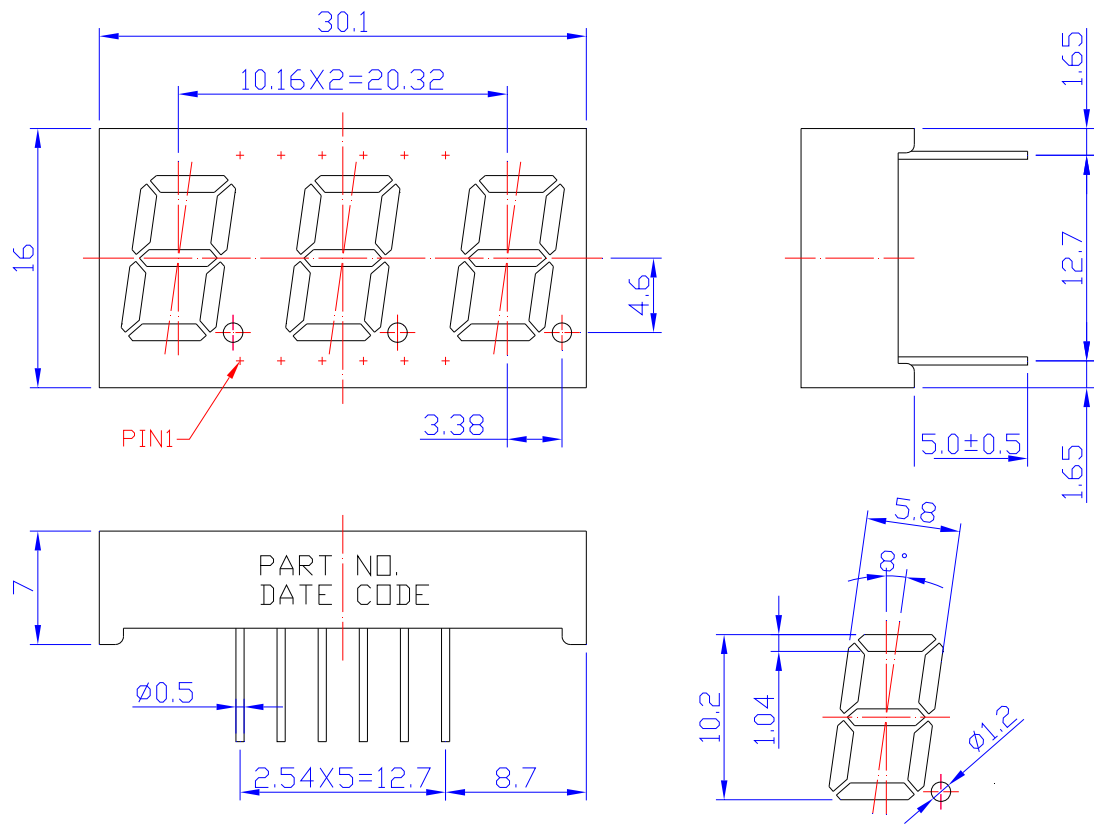


**SPECIFICATIONS** **CDTA40R2WF**

### OUTLINES DIMENSIONS



The technical drawings show the following dimensions:

- Top View:** Total width 30.1mm, height 16mm. Three LED chips are spaced 10.16mm apart (10.16 x 2 = 20.32mm). Pin 1 is on the left. Spacing from the right edge to the center of the chips is 3.38mm. A 4.6mm wide area is shown on the right side.
- Side View:** Total height 12.7mm. The LED chip height is 1.65mm. The mounting pad height is 5.0 ± 0.5mm. The bottom pad height is 1.65mm.
- Bottom View:** Shows the leaded package with a height of 7mm. The lead diameter is 0.5mm. The lead spacing is 2.54mm (2.54 x 5 = 12.7mm). The distance from the lead edge to the center of the package is 8.7mm. The package is marked with "PART NO. DATE CODE".
- Chip View:** Shows the LED chip with a width of 5.8mm, a height of 1.04mm, and a diameter of 1.2mm. The chip is tilted at an 8-degree angle.

**Notes:**

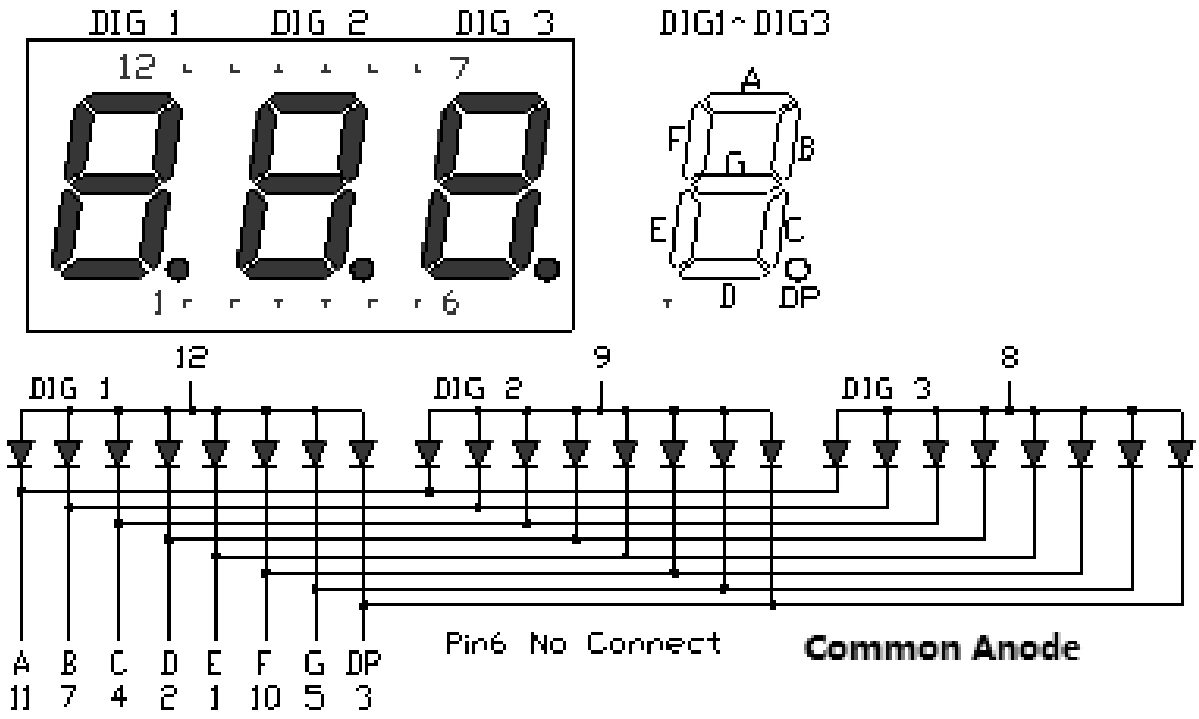
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
CDTA40R2WF	InGaAlP	Red	White Segment	Common Anode



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.chromeled.com](http://www.chromeled.com)

TYPICAL INTERNAL EQUIVALENT CIRCUIT



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.chromeled.com](http://www.chromeled.com)

**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	48	mW
Pulse Forward Current	IFP	40	mA
Continuous Forward Current	IF	20	mA
Reverse Voltage Segment	VR	5	V
Operating Temperature Range	TOPR	-40~+85	°C
Storage Temperature Range	TSTG	-40~+85	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec			

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	-	40	-	mcd
Forward Voltage	VF	IF = 20mA	-	2.1	2.4	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	μA
Peak Wavelength	λP	IF = 20mA	-	632	-	nm
Dominant Wavelength	λD	IF = 20mA	-	624	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	20	-	nm



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.chromeled.com](http://www.chromeled.com)

## OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

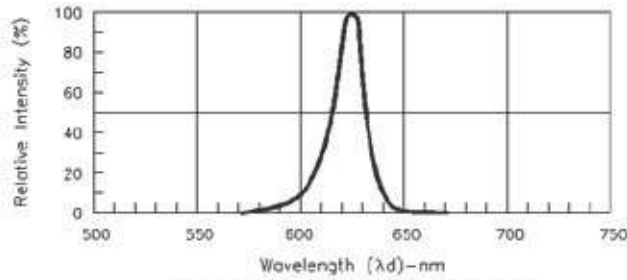


Fig.1-Relative Intensity VS. Wavelength

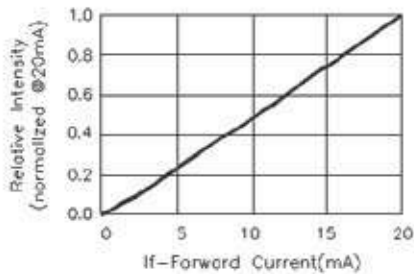


Fig.2-Relative Luminous Intensity vs. Forward Current

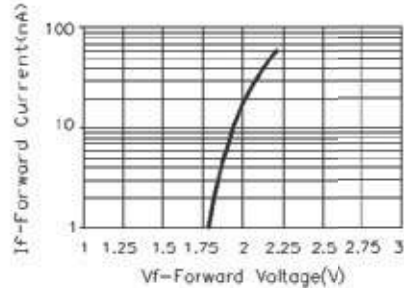


Fig.3-Forward Current vs. Forward Voltage

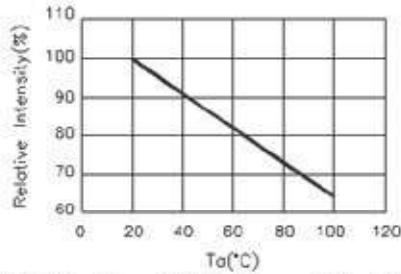


Fig.4-Relative Intensity(@20mA) vs. Ambient Temperature

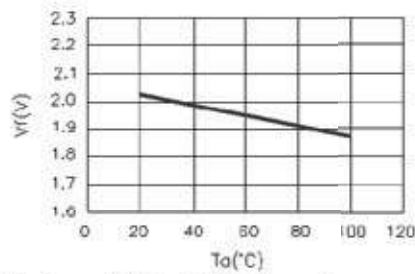


Fig.5-Forward Voltage(@20mA) vs. Ambient Temperature

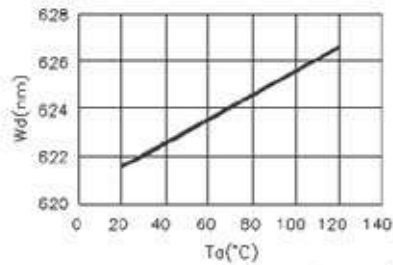


Fig.6-Dominant Wavelength(@20mA) VS. Ambient Temperature

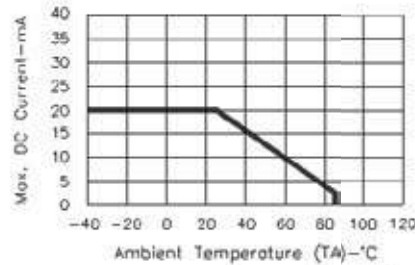
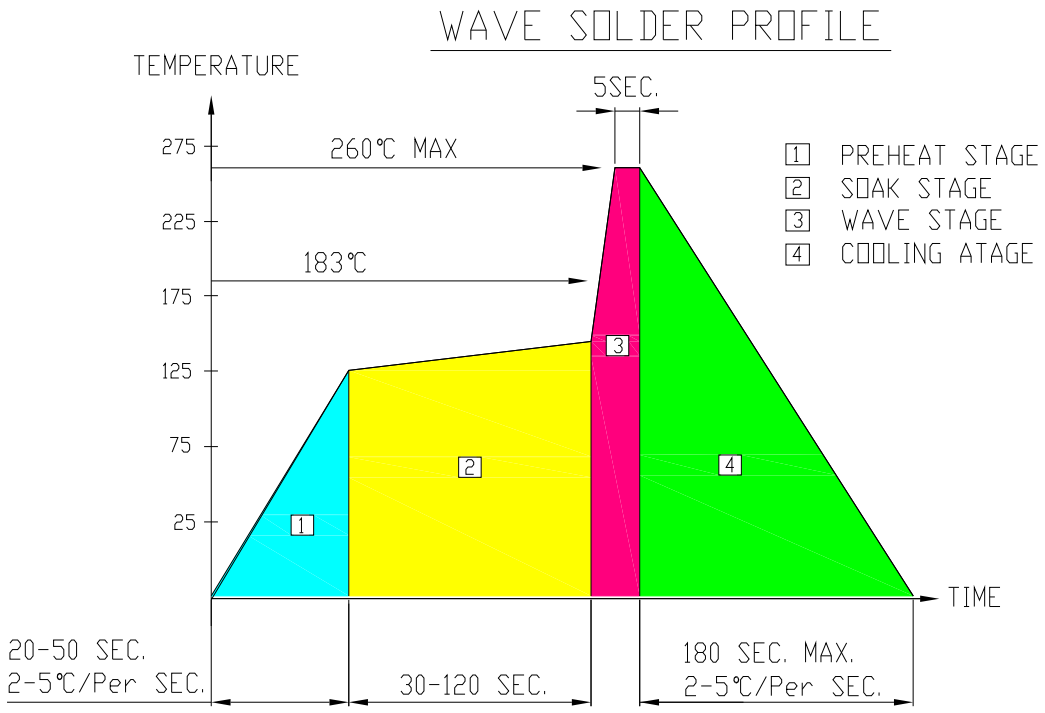


Fig.7-Max. Allowable DC Current VS. Ambient Temperature



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.chromeled.com](http://www.chromeled.com)

**SOLDERING CONDITIONS – DISPLAY TYPE LED**
**● RECOMMEND SOLDERING 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  $\leq 4$  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  $\leq 3$  sec under 350°C. The head of soldering iron cannot touch copper foil.



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.chromeled.com](http://www.chromeled.com)