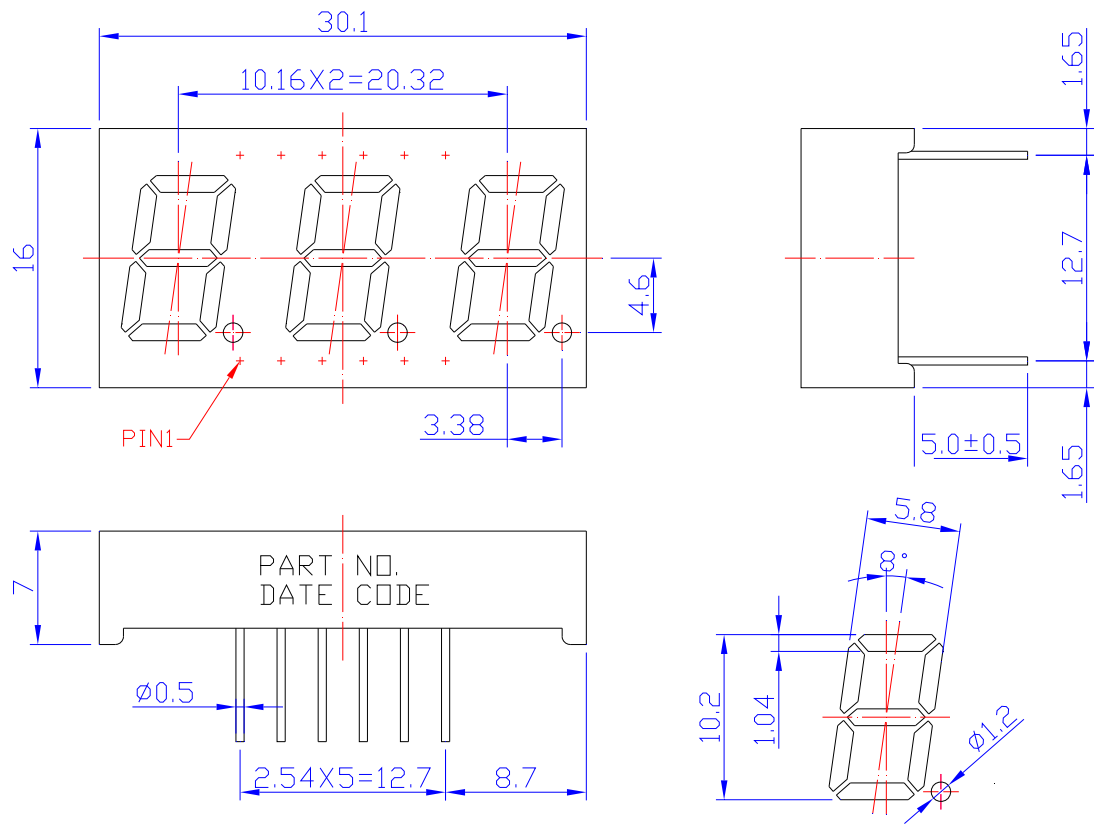


SPECIFICATIONS **CDTA40R2WF**

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 a 7mm wide tab with "PART NO. DATE" and "NO. CODE" markings. Five leads are spaced 2.54mm apart (2.54 x 5 = 12.7mm). The lead diameter is 0.5mm. The distance from the tab to the first lead is 8.7mm.
- Chip View:** Shows a 5.8mm wide chip with a 10.2mm height and a 1.04mm thickness. The chip has a 6° angle and a diameter of 1.2mm.

Notes:

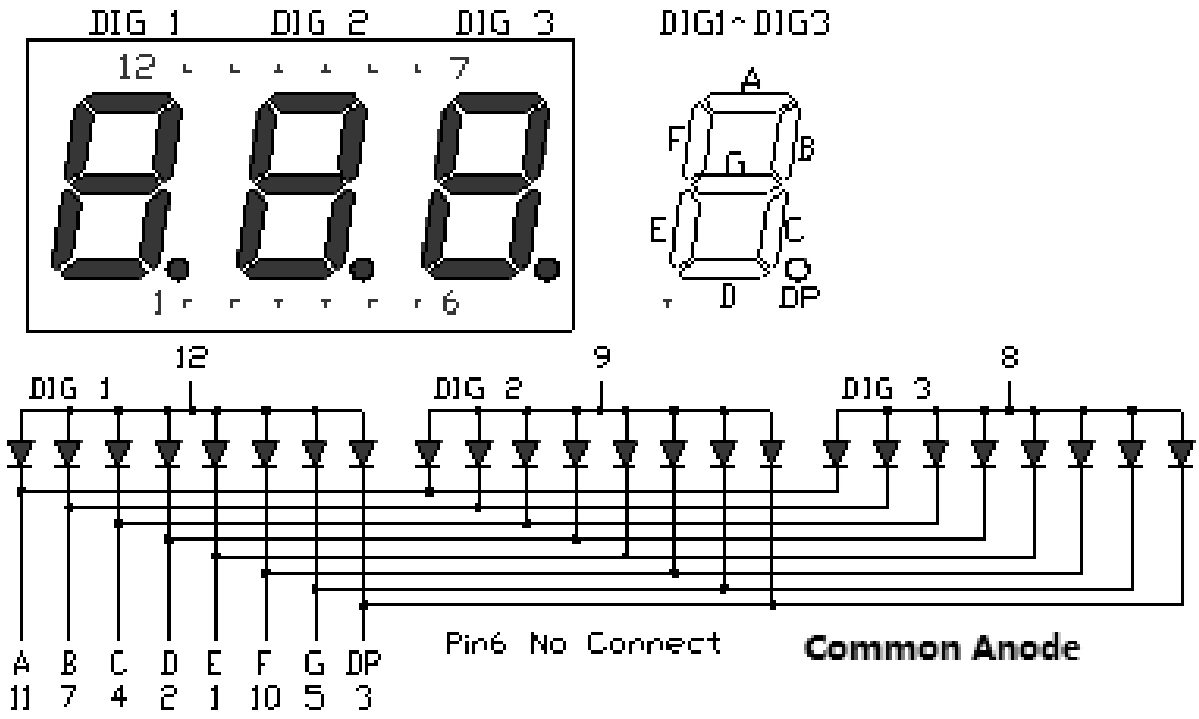
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

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



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TYPICAL INTERNAL EQUIVALENT CIRCUIT



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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



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OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

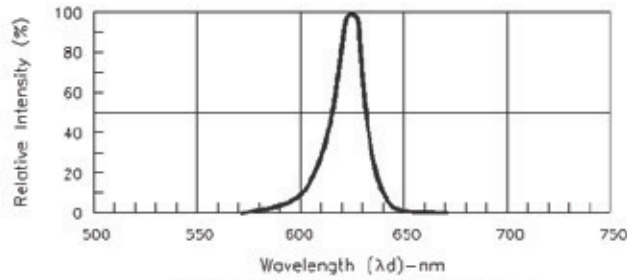


Fig.1-Relative Intensity VS. Wavelength

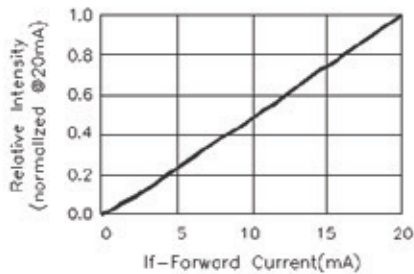


Fig.2-Relative Luminous Intensity vs. Forward Current

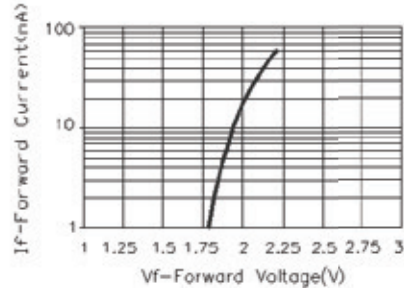


Fig.3-Forward Current vs. Forward Voltage

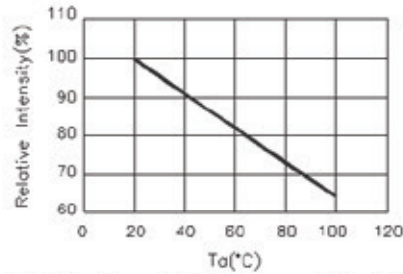


Fig.4-Relative Intensity(@20mA) vs. Ambient Temperature

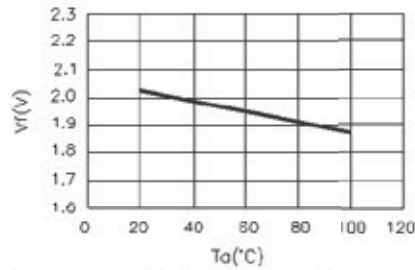


Fig.5-Forward Voltage(@20mA) vs. Ambient Temperature

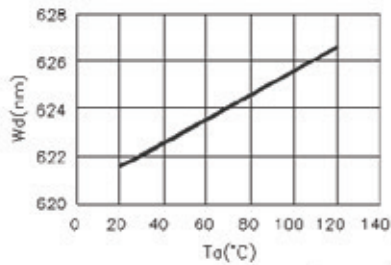


Fig.6-Dominant Wavelength(@20mA) VS. Ambient Temperature

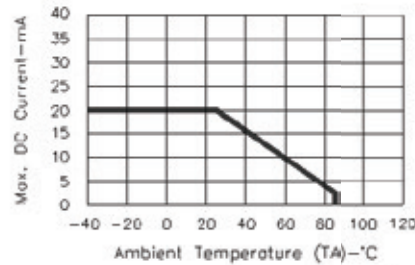


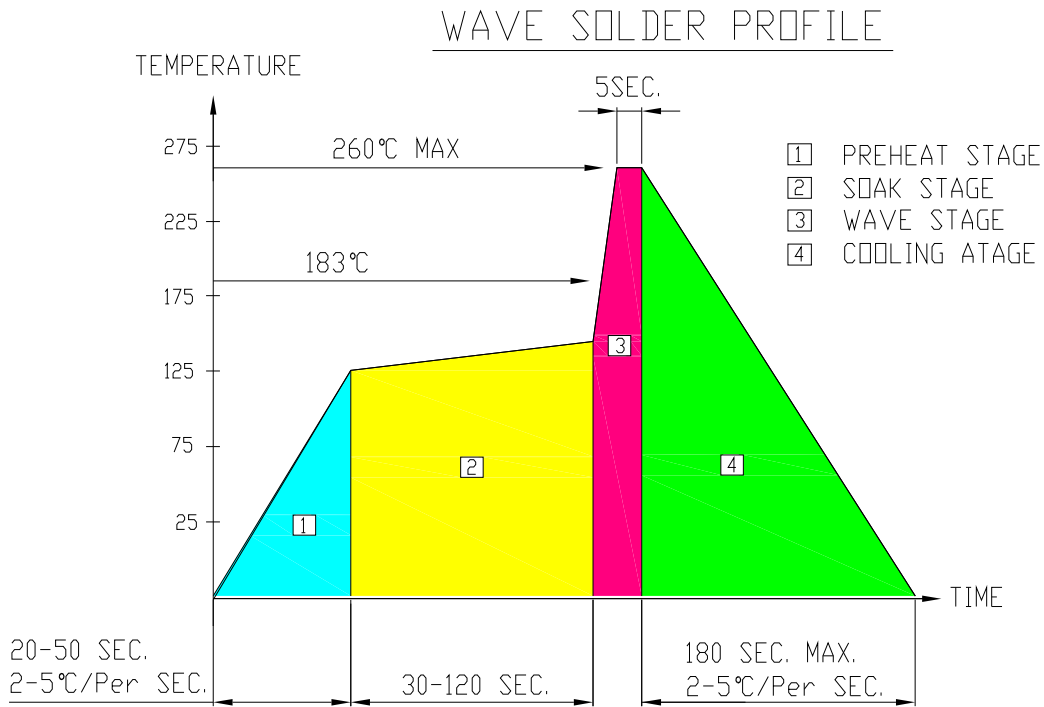
Fig.7-Max. Allowable DC Current VS. Ambient Temperature



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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 ≤ 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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