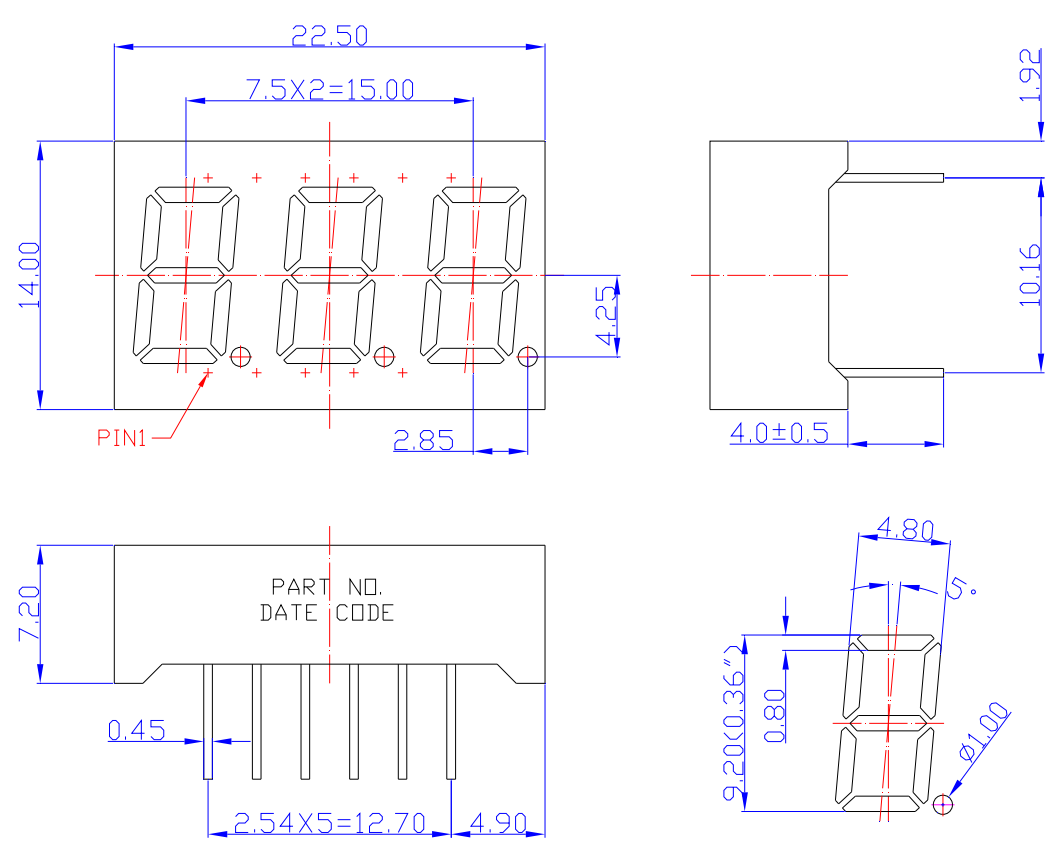


SPECIFICATIONS **CDTA36R2WF**

OUTLINES DIMENSIONS



The technical drawings show the following dimensions:

- Top View:** Overall width 22.50mm, height 14.00mm. The LED array is 15.00mm wide (7.5mm x 2) and 4.25mm high. The distance from the center of the array to the right edge is 2.85mm. A PIN1 is indicated at the bottom left.
- Side View:** Total height 1.92mm, mounting hole diameter 4.0 ± 0.5mm, and mounting hole offset 10.16mm.
- Bottom View:** Height 7.20mm. The package has a central area for "PART NO.", "DATE", and "CODE". The distance from the left edge to the start of the leads is 0.45mm. The total length of the leads is 12.70mm (2.54mm x 5), with a 4.90mm offset to the right edge.
- Isometric View:** Shows the lens diameter as 4.80mm, a 5-degree angle, a height of 0.80mm, and a total height of 9.20mm (0.36 inches). The lead diameter is 1.00mm.

Notes:

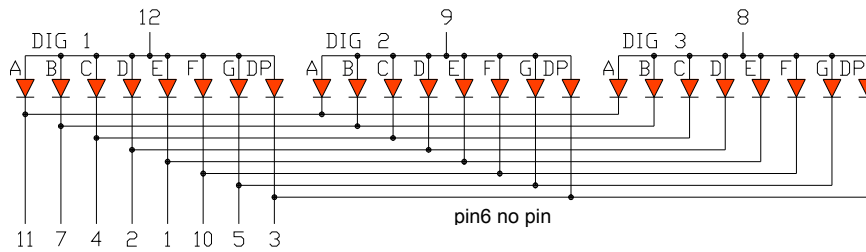
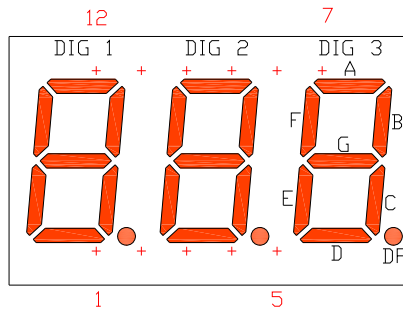
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

| Part Number | Chip Material | Color of Emission | Lens Type | Description |
|-------------|---------------|-------------------|---------------|--------------|
| CDTA36R2WF | 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 | 70 | mW |
| Pulse Forward Current | IFP | 90 | mA |
| Continuous Forward Current | IF | 25 | mA |
| Reverse Voltage Segment | VR | 5 | V |
| Operating Temperature Range | TOPR | -25~+85 | °C |
| Storage Temperature Range | TSTG | -25~+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 | - | 20 | - | mcd |
| Forward Voltage | VF | IF = 20mA | - | 2.0 | 2.6 | V |
| Reverse Leakage Current | IR | VR = 5V | - | - | 10 | µA |
| Peak Wavelength | λP | IF = 20mA | - | 650 | - | nm |
| Dominant Wavelength | λD | IF = 20mA | - | 639 | - | nm |
| Spectral Radiation Bandwidth | Δλ | IF = 20mA | - | 20 | - | nm |



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OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

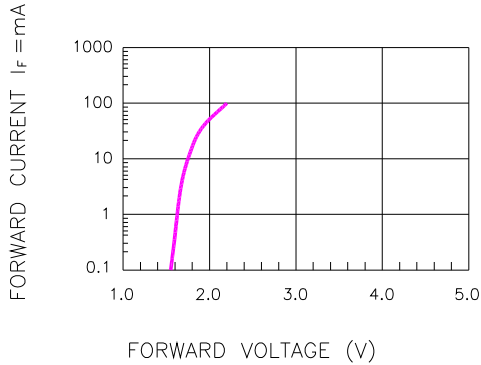


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

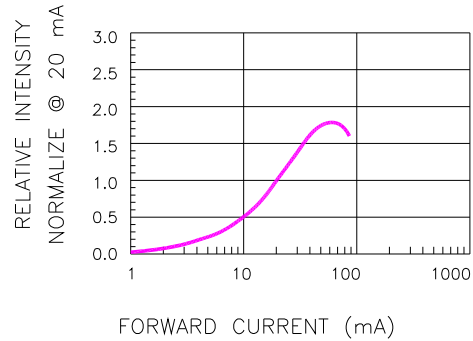


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

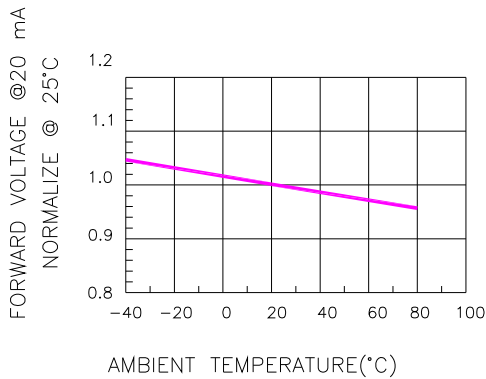


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

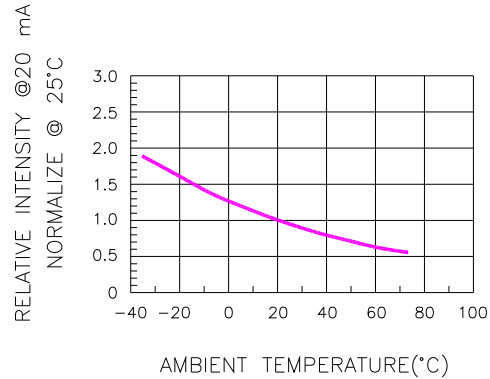


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

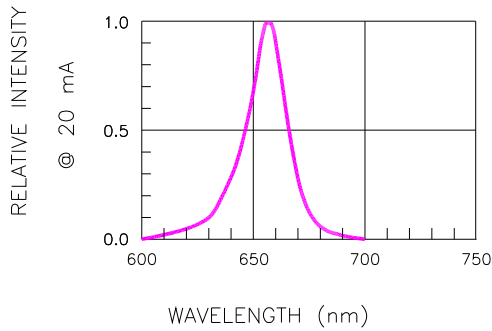


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

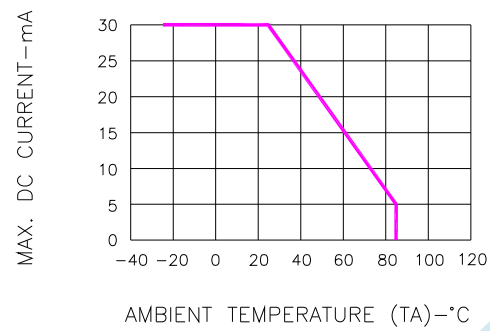


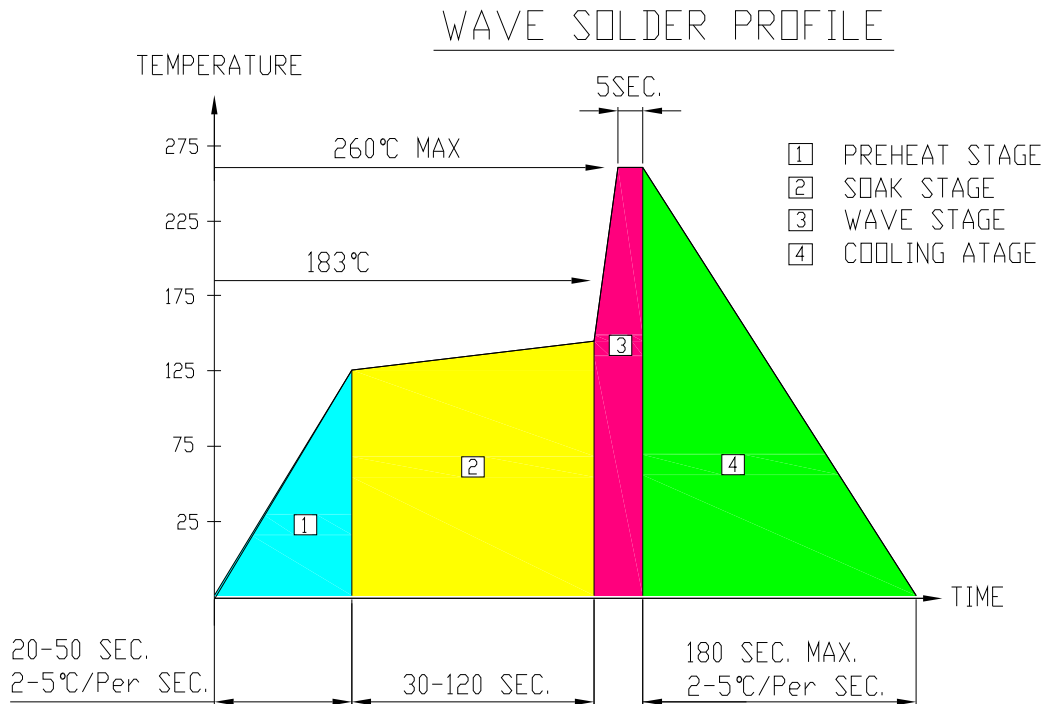
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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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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