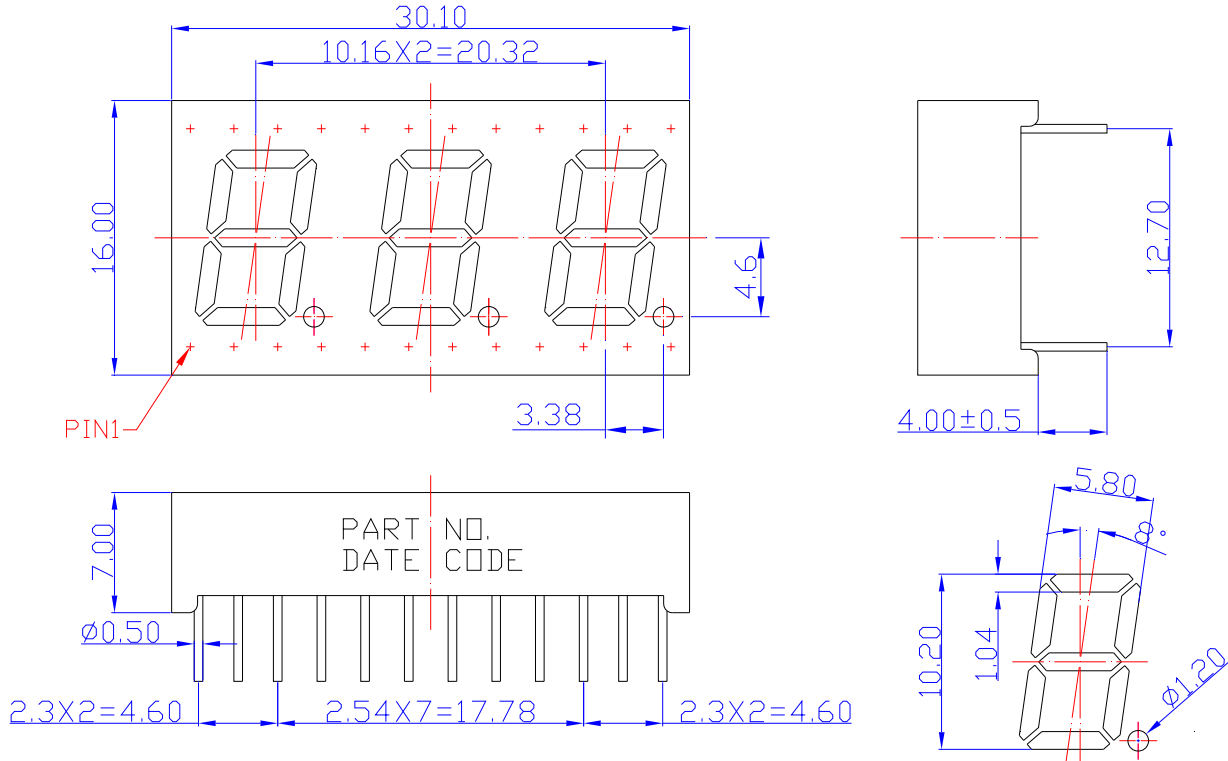


SPECIFICATIONS **CDTA40B2WF**

OUTLINES DIMENSIONS



The drawing shows the following dimensions:

- Top View:** Total width 30.10mm, distance between chip centers $10.16 \times 2 = 20.32$ mm, total height 16.00mm, chip height 4.6mm, and distance from chip center to edge 3.38mm.
- Side View:** Total height 12.70mm, mounting tab width 4.00 ± 0.5 mm.
- Bottom View:** Mounting tab height 7.00mm, tab width $\phi 0.50$ mm, distance between tabs $2.3 \times 2 = 4.60$ mm, distance between chip centers $2.54 \times 7 = 17.78$ mm, and distance from chip center to edge $2.3 \times 2 = 4.60$ mm.
- Chip Detail:** Chip width 5.80mm, chip height 1.04mm, and chip diameter $\phi 1.20$ mm.

Notes:

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

| Part Number | Chip Material | Color of Emission | Lens Type | Description |
|-------------|---------------|-------------------|---------------|--------------|
| CDTA40B2WF | InGaN | Blue | White Segment | Common Anode |



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

| Parameter | Symbol | Max Rating | Unit |
|---|--------|------------|------|
| Power Dissipation | PD | 120 | mW |
| Pulse Forward Current | IFP | 100 | mA |
| Continuous Forward Current | IF | 30 | 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 | | | |

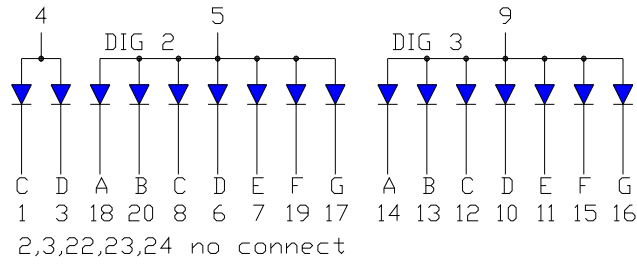
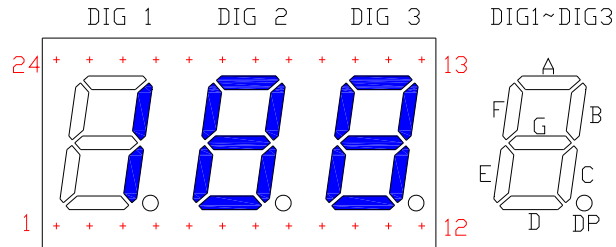
OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

| Parameter | Symbol | Test Condition | Value | | | Unit |
|------------------------------|--------|----------------|-------|-----|-----|------|
| | | | Min | Typ | Max | |
| Luminous Intensity | IV | IF = 20mA | - | 40 | - | mcd |
| Forward Voltage | VF | IF = 20mA | - | 3.0 | 4.0 | V |
| Reverse Leakage Current | IR | VR = 5V | - | - | 10 | µA |
| Dominant Wavelength | λD | IF = 20mA | 460 | 465 | 475 | nm |
| Spectral Radiation Bandwidth | Δλ | IF = 20mA | - | 40 | - | nm |



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TYPICAL INTERNAL EQUIVALENT CIRCUIT



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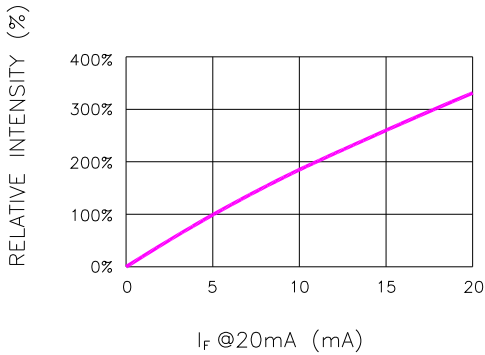
OPTICAL CHARACTERISTIC CURVES
**Typical Electro-optical Characteristic Curves
(25 °C Free Air Temperature Unless Otherwise Specified)**


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

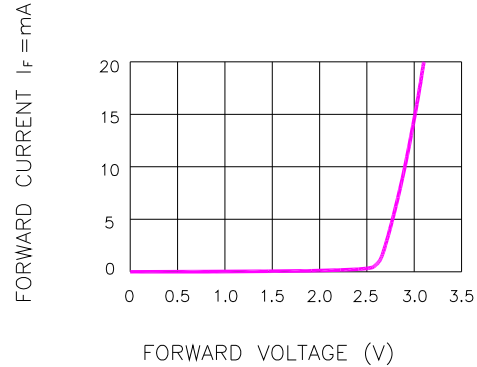


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

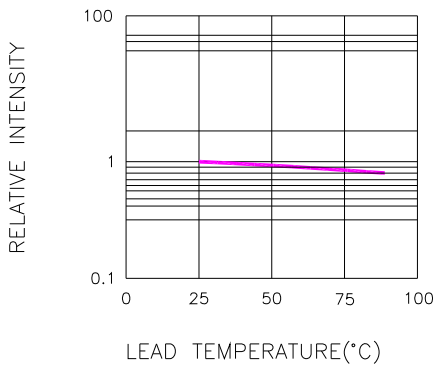
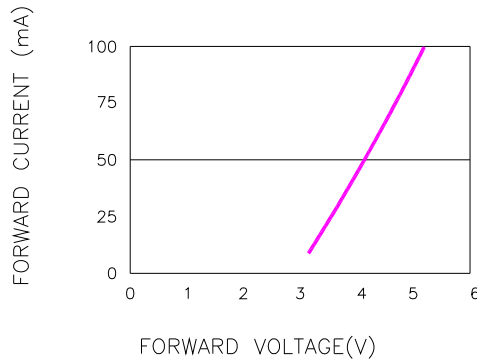

 Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

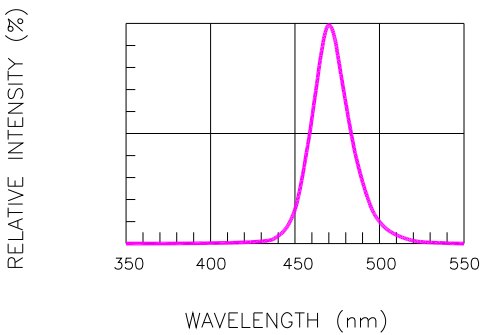


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

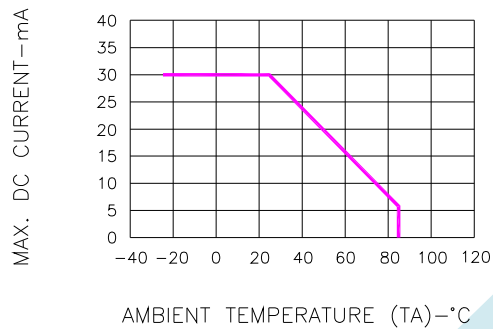


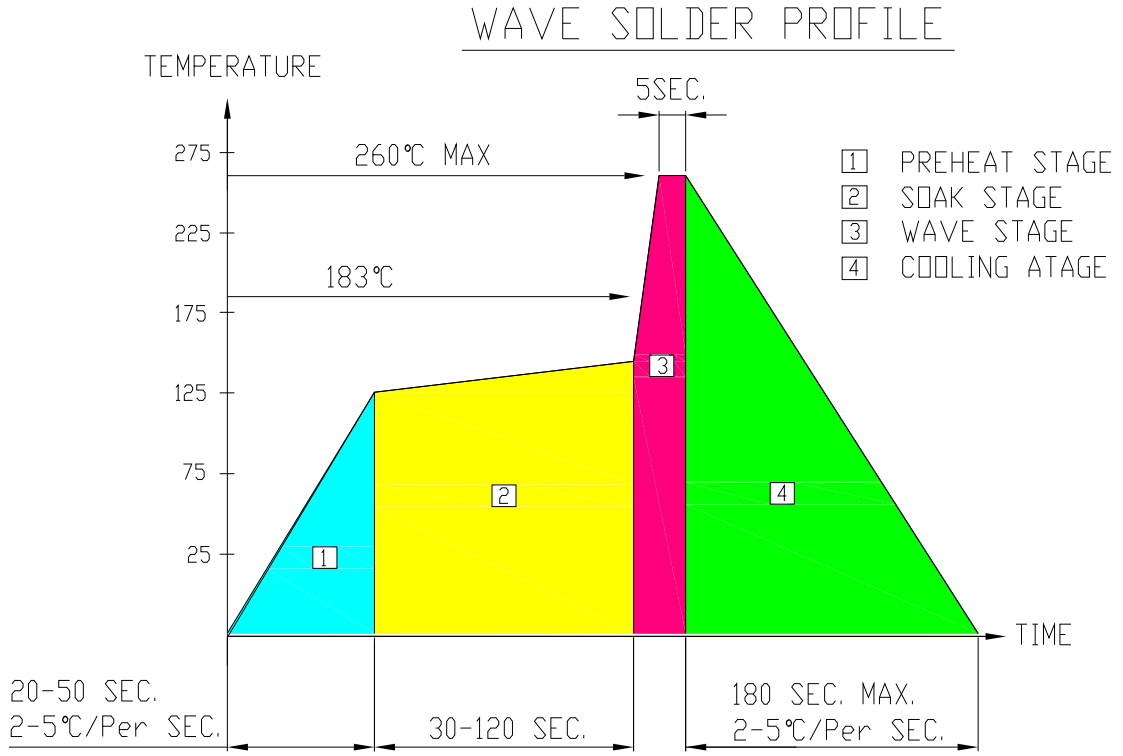
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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SOLDERING CONDITIONS – DISPLAY TYPE LED

● RECOMMEND SOLDERING PROFILE



● 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.



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