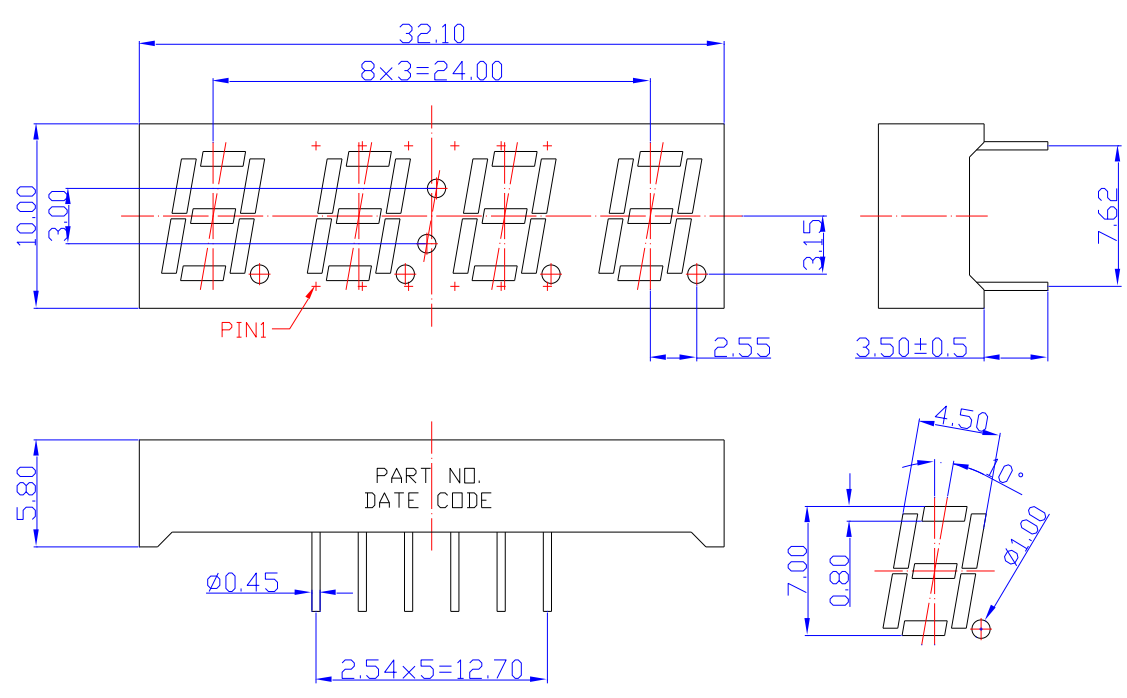


**SPECIFICATIONS** **CDQA28G2W**

### OUTLINES DIMENSIONS



The drawing shows the following dimensions:

- Top View:** Total length 32.10 mm, with a central segment of 8x3=24.00 mm. Total width 10.00 mm, with a central segment of 3.00 mm. Pin 1 is indicated on the left.
- Side View:** Total height 7.62 mm. The main body width is 3.50±0.5 mm. The base width is 2.55 mm.
- Bottom View:** Total length 5.80 mm. The base has a diameter of  $\varnothing 0.45$  mm and a width of 2.54x5=12.70 mm. The base is marked with PART NO., DATE, and CODE.
- Detail View:** Shows a lens with a diameter of  $\varnothing 1.00$  mm, a height of 0.80 mm, and a 10° angle. The lens width is 4.50 mm.

**Notes:**

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

| Part Number | Chip Material | Color of Emission | Lens Type     | Description  |
|-------------|---------------|-------------------|---------------|--------------|
| CDQA28G2W   | InGaAlP       | Green             | White Segment | Common Anode |



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

| Parameter   | Symbol | Max Rating | Unit |
|---|--------|------------|------|
| Power Dissipation   | PD     | 85         | mW   |
| Pulse Forward Current   | IFP    | 120        | 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 |        |            |      |

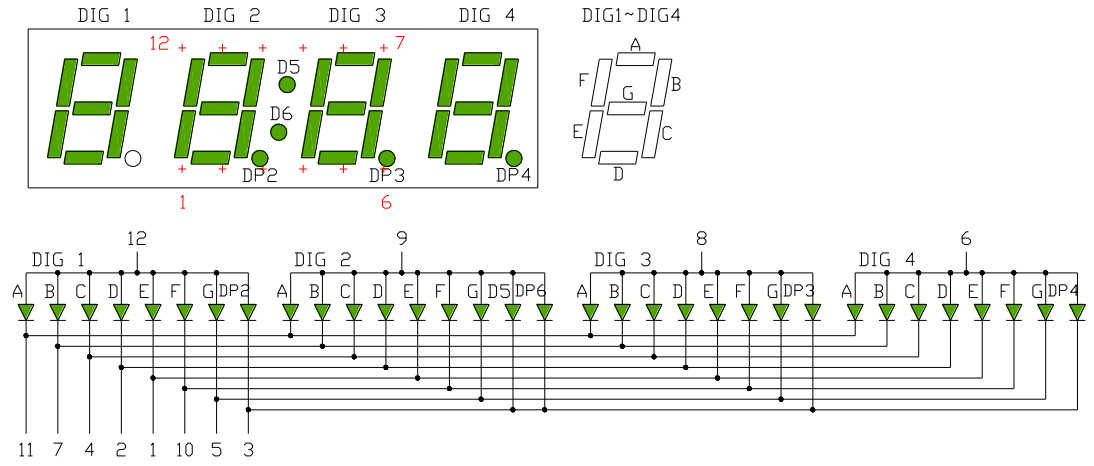
**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

| Parameter                    | Symbol | Test Condition | Value |     |     | Unit |
|------------------------------|--------|----------------|-------|-----|-----|------|
|                              |        |                | Min   | Typ | Max |      |
| Luminous Intensity           | IV     | IF = 20mA      | -     | 20  | -   | mcd  |
| Forward Voltage              | VF     | IF = 20mA      | -     | 2.1 | 2.6 | V    |
| Reverse Leakage Current      | IR     | VR = 5V        | -     | -   | 10  | µA   |
| Peak Wavelength              | λP     | IF = 20mA      | -     | 573 | -   | nm   |
| Dominant Wavelength          | λD     | IF = 20mA      | 566   | 571 | 574 | nm   |
| Spectral Radiation Bandwidth | Δλ     | IF = 20mA      | -     | 20  | -   | nm   |



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## TYPICAL INTERNAL EQUIVALENT CIRCUIT



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## OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

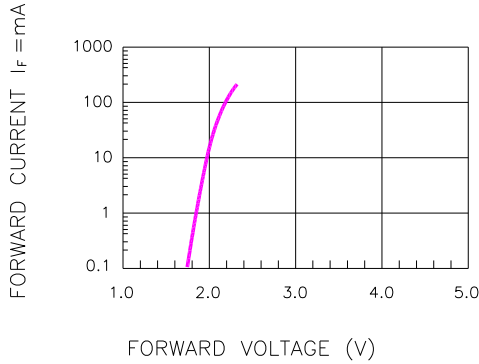


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

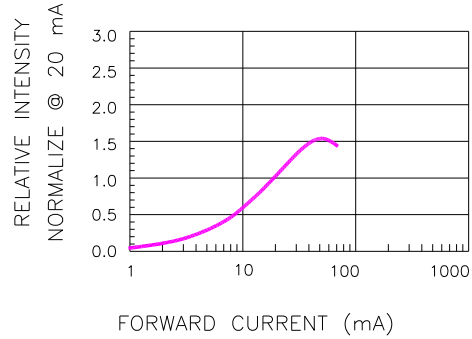


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

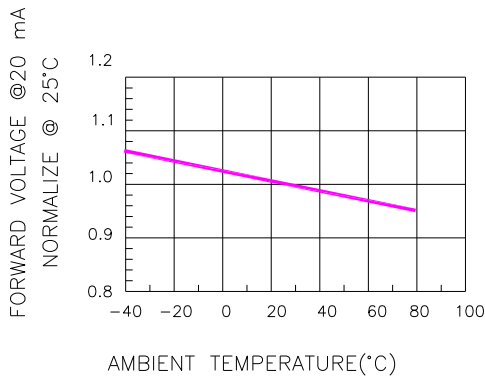


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

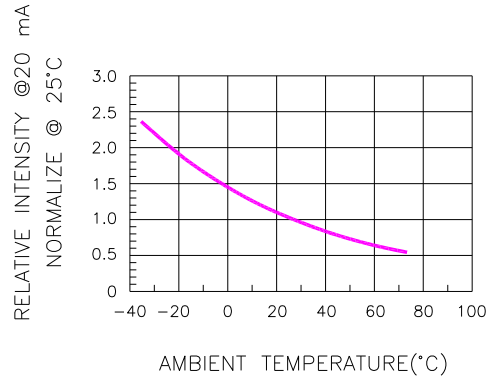


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

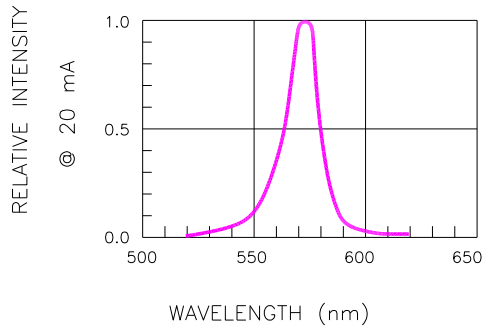


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

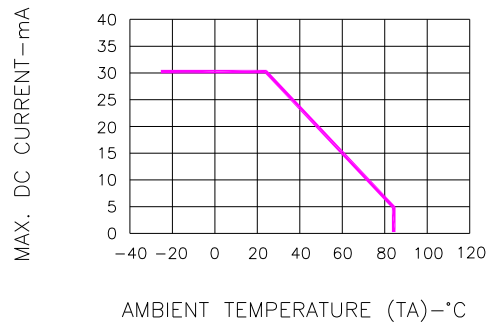
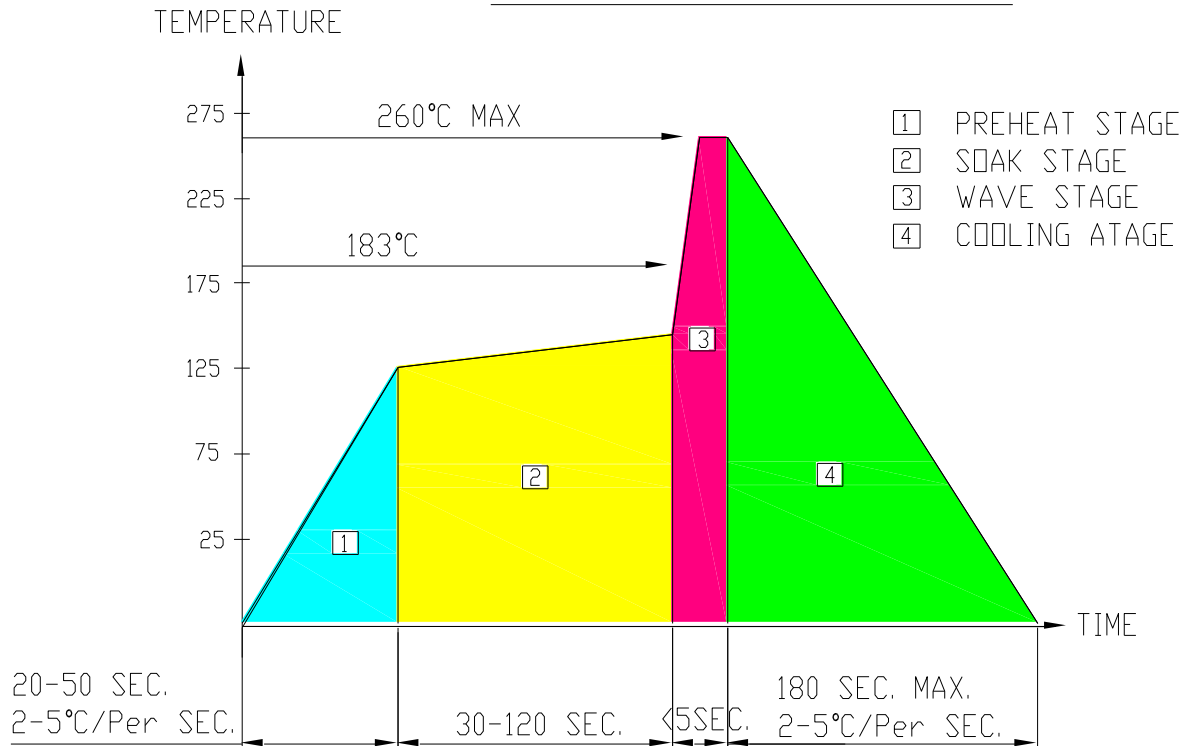


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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**SOLDERING CONDITIONS – DISPLAY TYPE LED**
**● RECOMMEND SOLDERING PROFILE**
WAVE SOLDER PROFILE

**● 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  $\leq 4$  sec under 245°C.



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