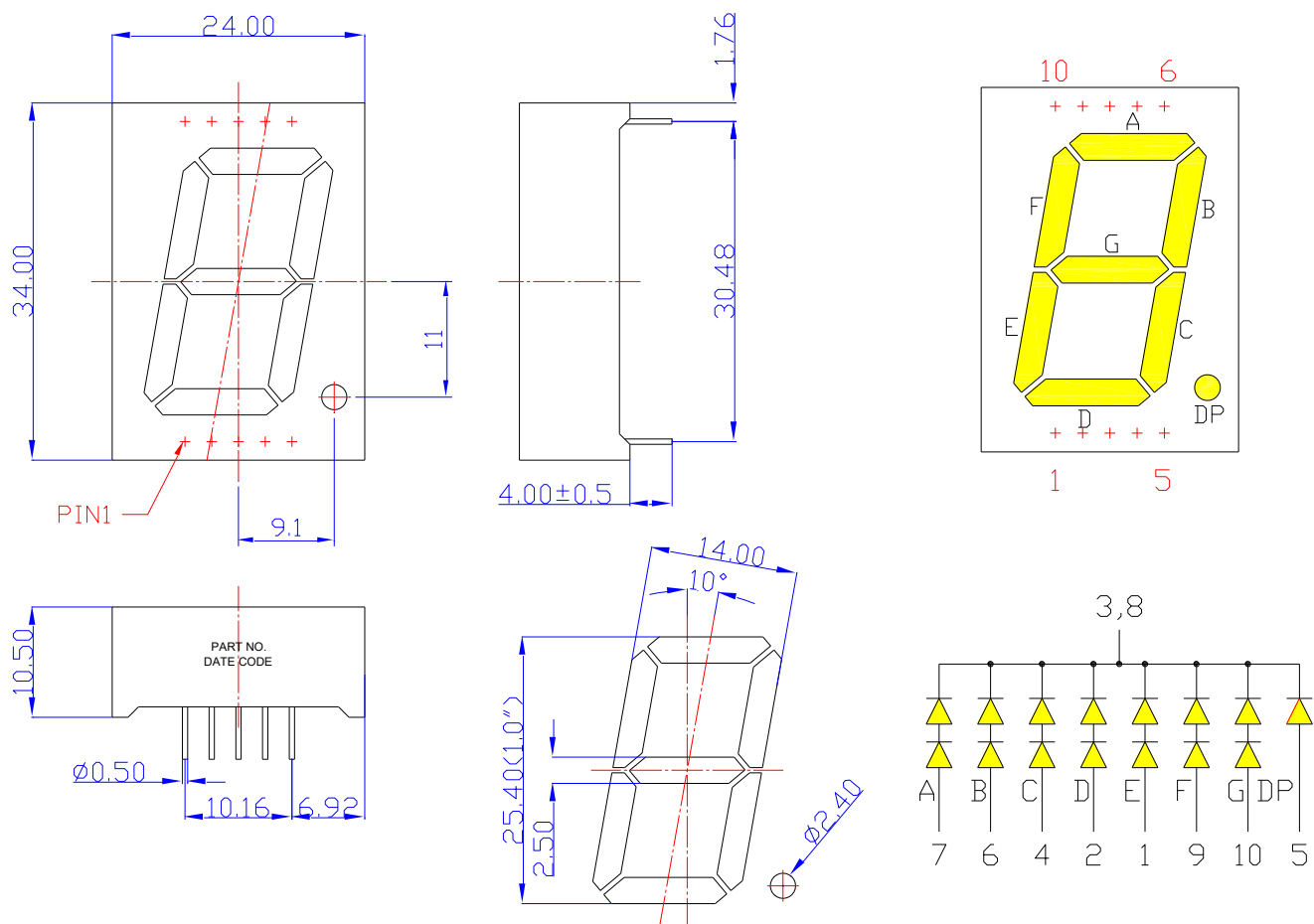


**SPECIFICATIONS** **CDSC10Y2WF**

### OUTLINES DIMENSIONS



**Notes:**

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

| Part Number | Chip Material | Color of Emission | Lens Type     | Description    |
|-------------|---------------|-------------------|---------------|----------------|
| CDSC10Y2WF  | InGaAlP       | Yellow            | White Segment | Common Cathode |



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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 per dice   | 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      | -     | 90  | -   | mcd  |
| Forward Voltage          | VF     | IF = 20mA      | -     | 4.0 | 5.2 | V    |
| Reverse Leakage Current  | IR     | VR = 5V        | -     | -   | 10  | µA   |
| Peak Wavelength          | λp     | IF = 20mA      | -     | 593 | -   | nm   |
| Dominant Wavelength      | λd     | IF = 20mA      | -     | 590 | -   | nm   |
| Spectral Line half-width | Δλ     | IF = 20mA      | -     | 20  | -   | nm   |



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## OPTICAL CHARACTERISTIC CURVES

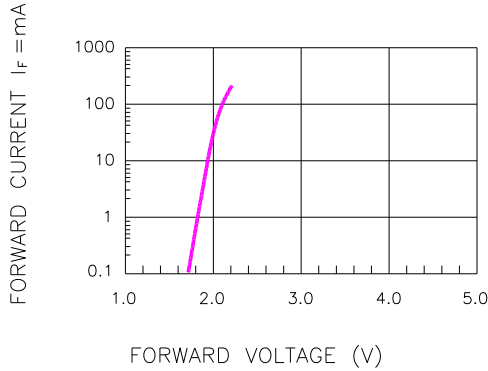


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

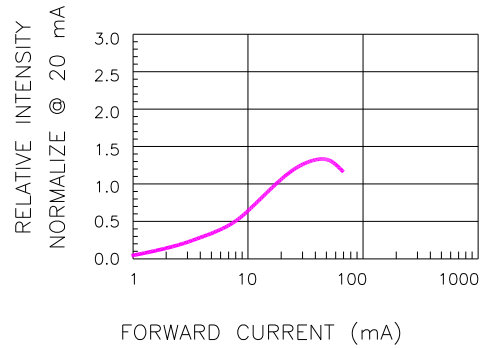


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

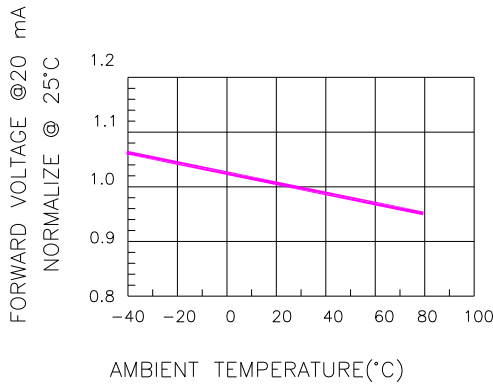


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

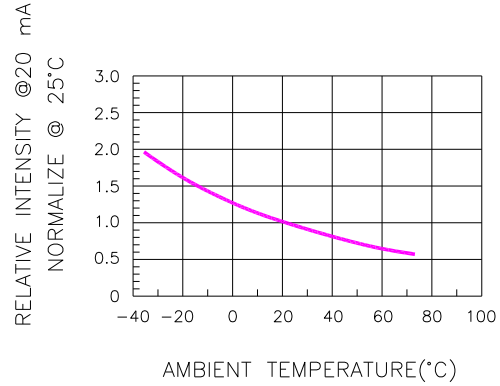


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

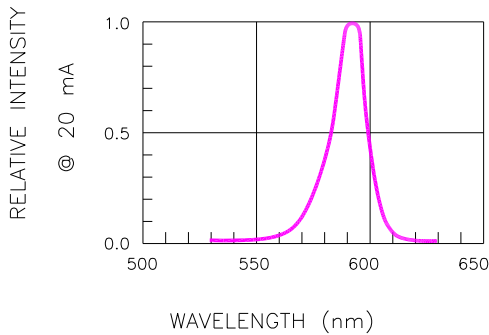


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

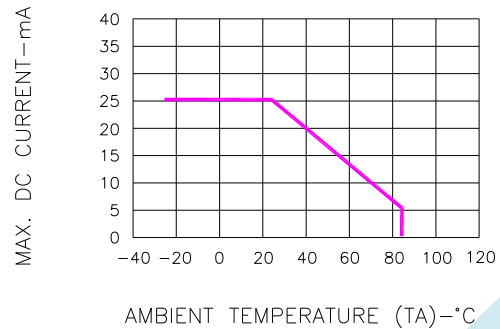


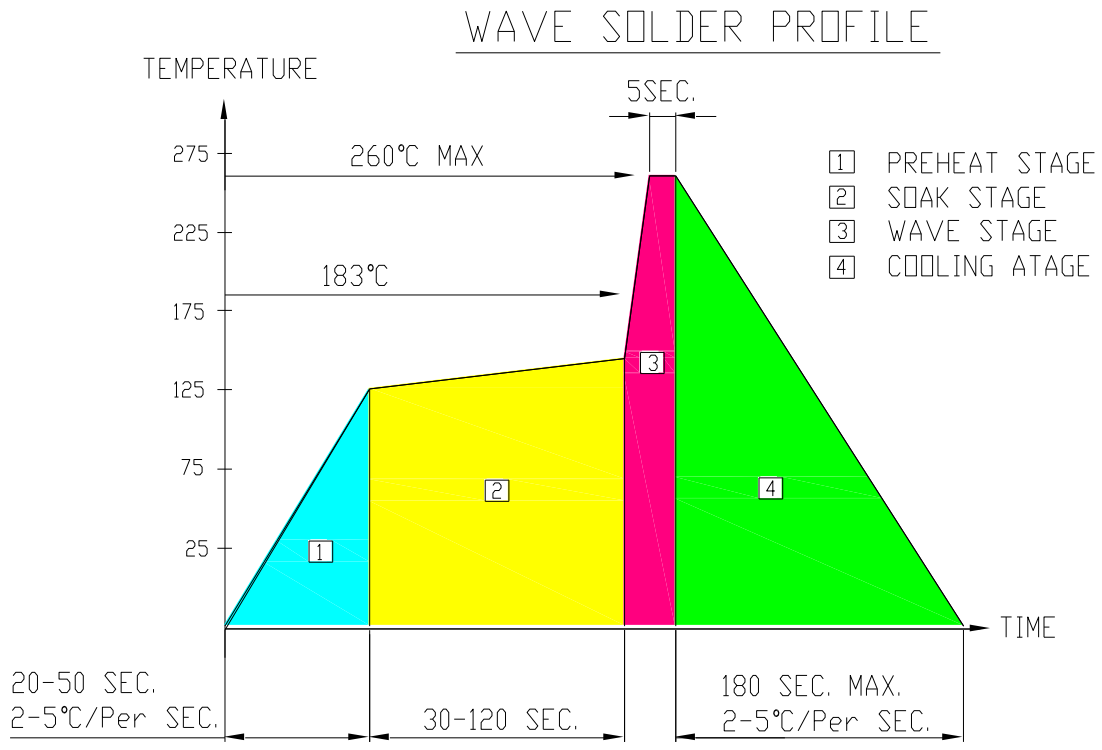
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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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  $\leq 4$  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.



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