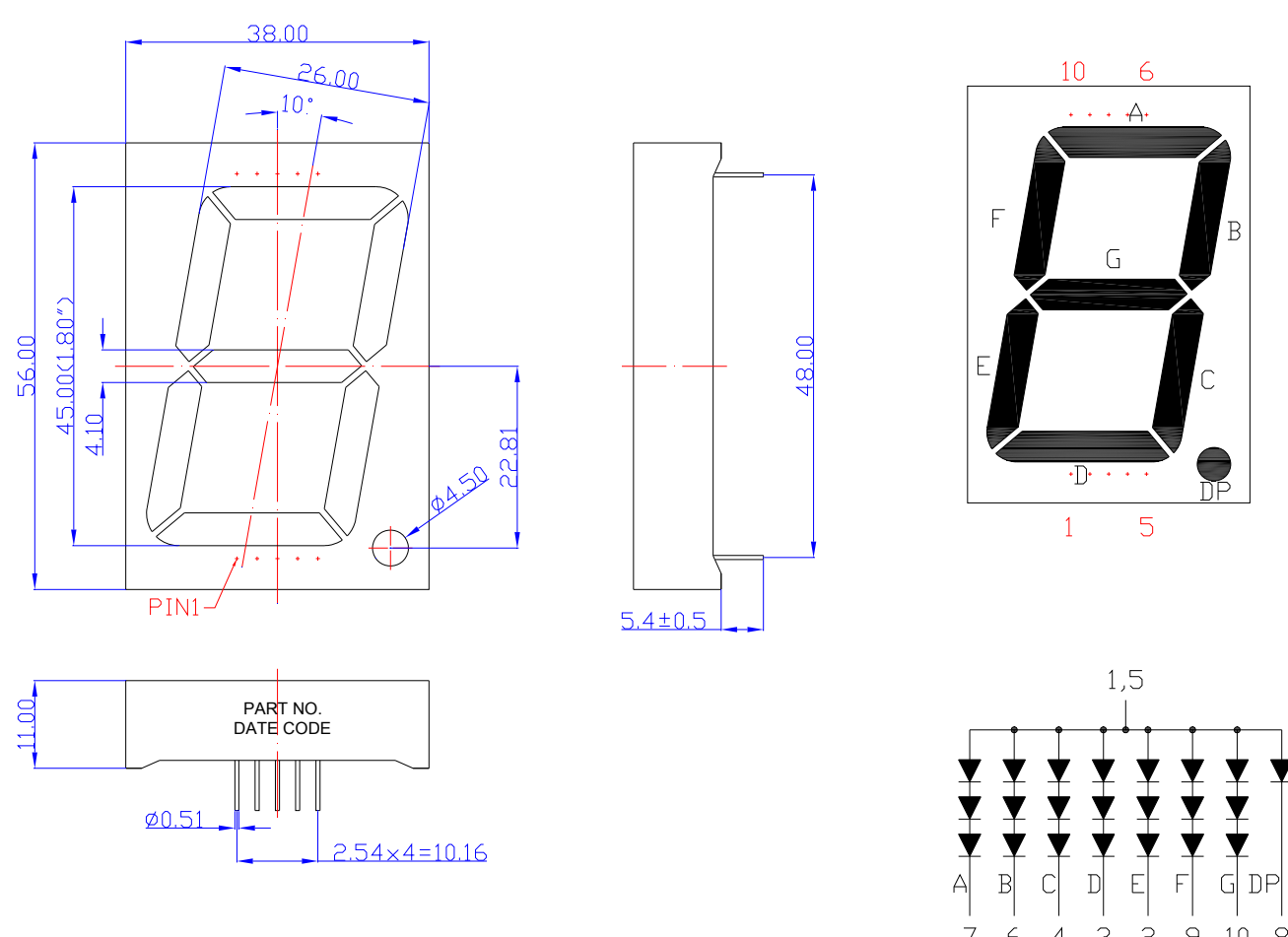


SPECIFICATIONS **CDSA18W2W**

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 |
|-------------|---------------|-------------------|---------------|--------------|
| CDSA18W2W | InGaN | White | White Segment | Common Anode |



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

| Parameter | Symbol | Max Rating | Unit |
|---------------------------------------------------------------------------------|--------|------------|------|
| Power Dissipation | PD | 78 | mW |
| Pulse Forward Current | IFP | 60 | mA |
| Continuous Forward Current | IF | 20 | 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 per segment | Iv | IF = 5mA | - | 180 | - | mcd |
| Forward Voltage per segment | VF | IF = 5mA | - | 8.7 | - | V |
| Reverse Leakage Current | IR | VR = 5V | - | - | 10 | µA |
| Chromaticity Coordinates | X | IF = 5mA | - | 0.285 | - | - |
| Chromaticity Coordinates | Y | IF = 5mA | - | 0.275 | - | - |
| Spectral Radiation Bandwidth | Δλ | IF = 5mA | - | 30 | - | nm |



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

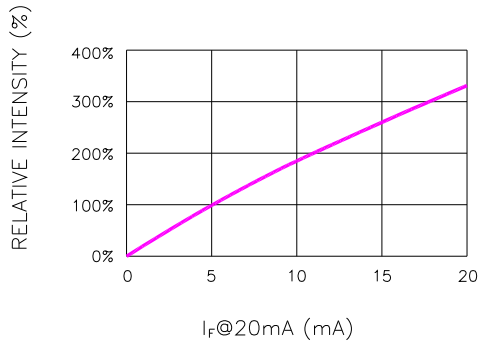


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

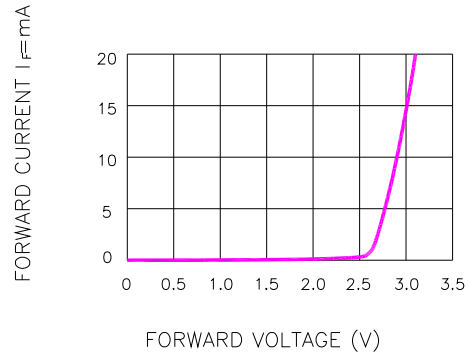


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

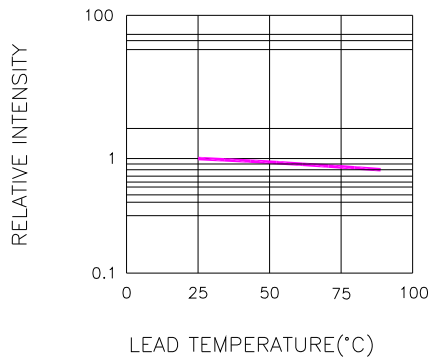


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

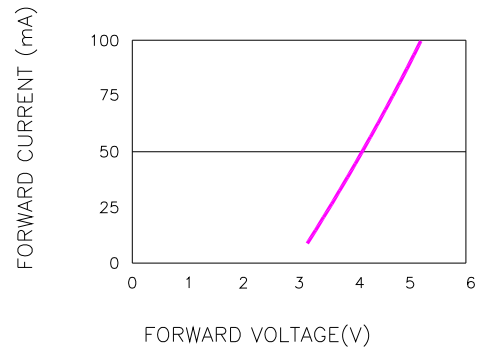


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD(100us TEST PULSE, 1% DUTY CYCLE)

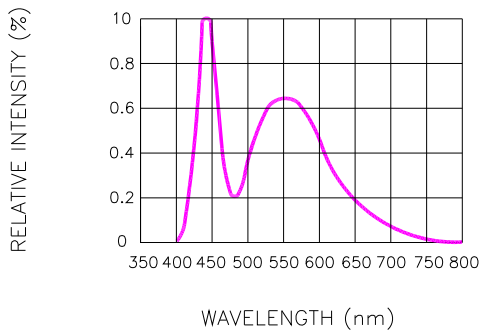


Fig.4 RELATIVE INTENSITY VS. WAVELENGTH

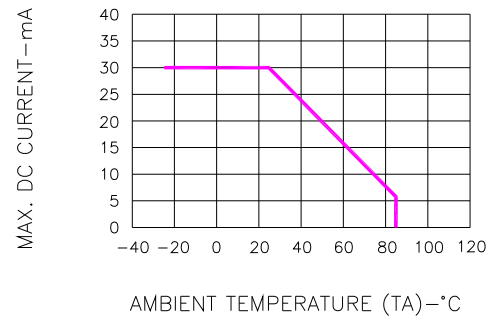
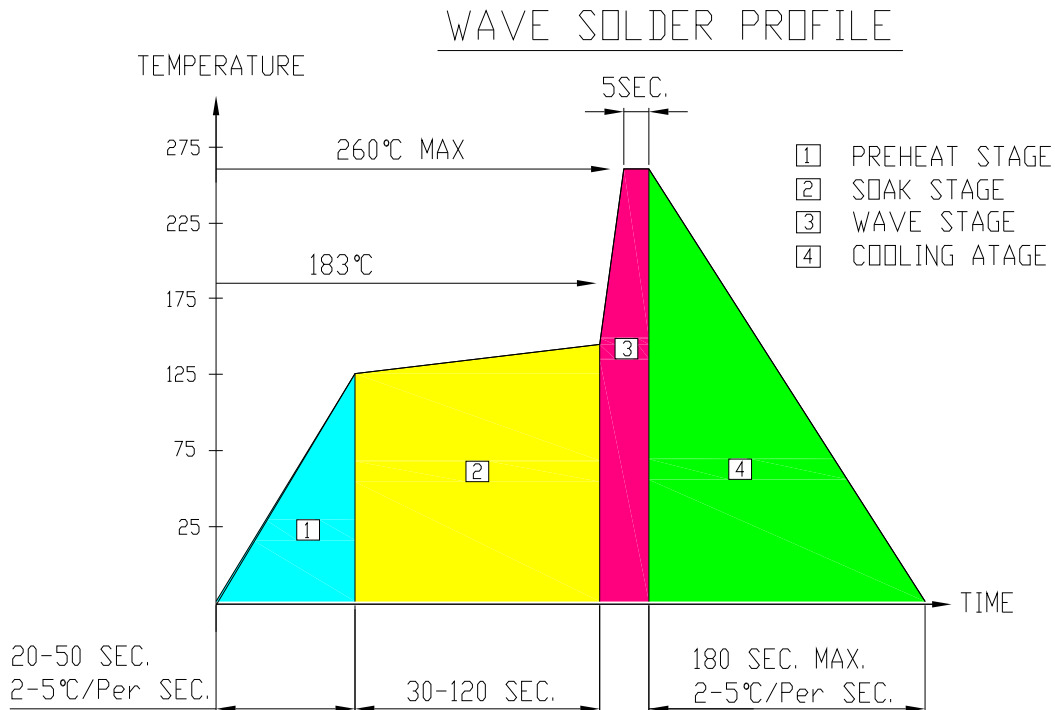


Fig.7 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

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.



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com