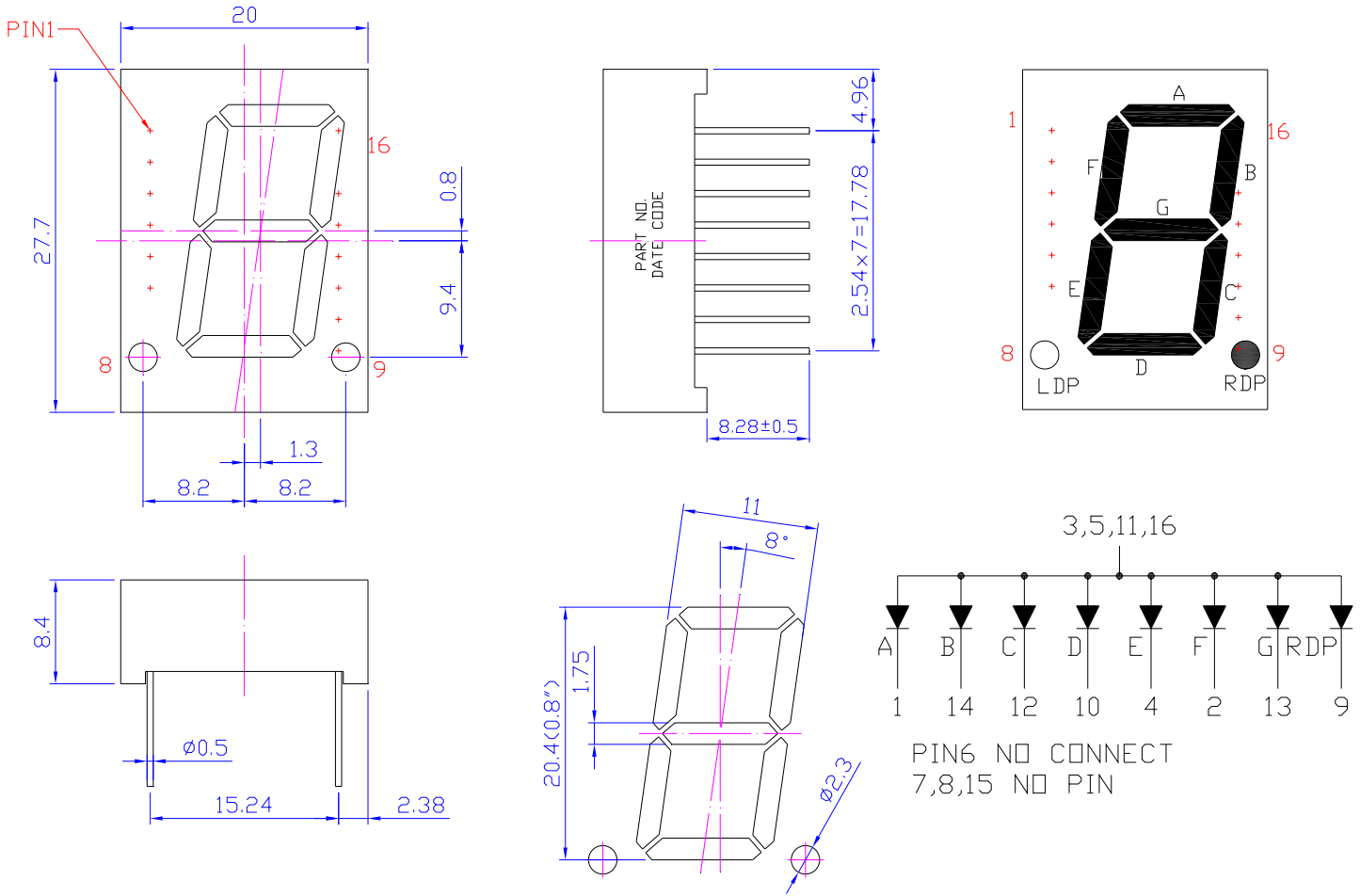


SPECIFICATIONS CDSA80W2WB-1DP

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 |
|----------------|---------------|-------------------|---------------|--------------|
| CDSA80W2WB-1DP | GaN | White | White Segment | Common Anode |



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

| Parameter | Symbol | Max Rating | Unit |
|---|------------------|------------|------|
| Power Dissipation | P _D | 78 | mW |
| Pulse Forward Current | I _{FP} | 80 | mA |
| Continuous Forward Current | I _F | 20 | mA |
| Reverse Voltage Segment | V _R | 5 | V |
| Operating Temperature Range | T _{OPR} | -30~+80 | °C |
| Storage Temperature Range | T _{STG} | -40~+85 | °C |
| I _{FP} = 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 | I _V | I _F = 5mA | 12 | 25 | - | mcd |
| Forward Voltage | V _F | I _F = 5mA | - | 2.9 | 3.4 | V |
| Reverse Leakage Current | I _R | V _R = 5V | - | - | 10 | μA |
| Chromaticity Coordinates | X | I _F = 5mA | - | 0.29 | - | - |
| Chromaticity Coordinates | Y | I _F = 5mA | - | 0.28 | - | - |
| Luminous Intensity Matching Ratio (Segment to Segment) | I _V -m | I _F = 5mA | - | 1:1.5 | - | - |



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OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

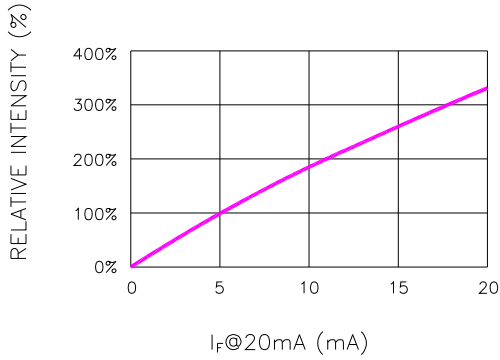


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

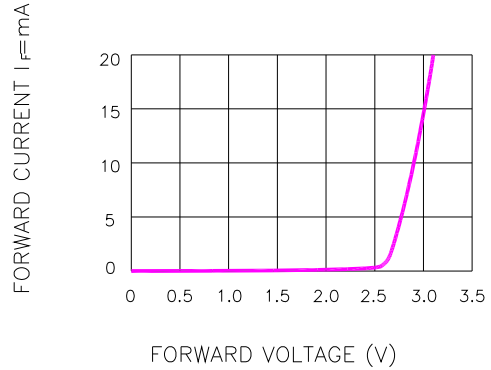


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

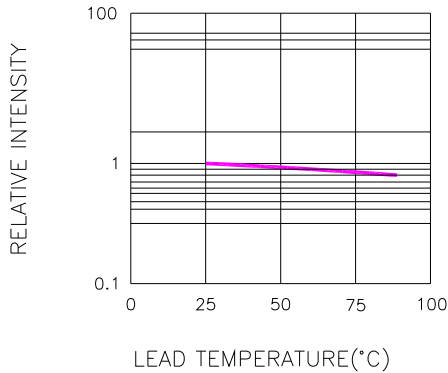


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

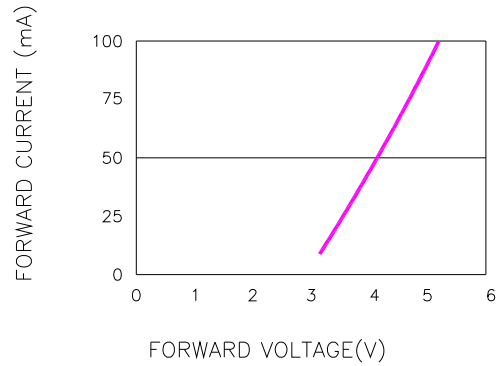


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

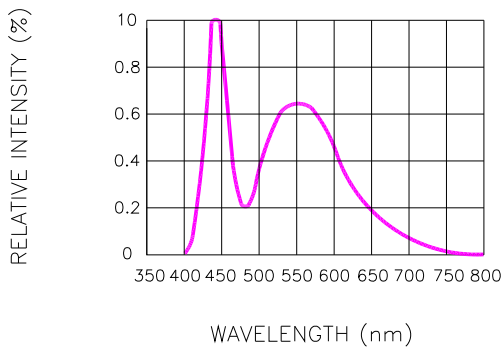


Fig.4 RELATIVE INTENSITY VS. WAVELENGTH

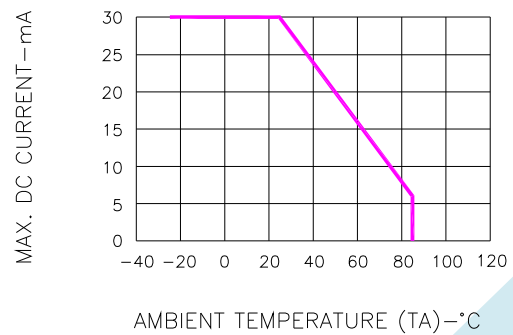


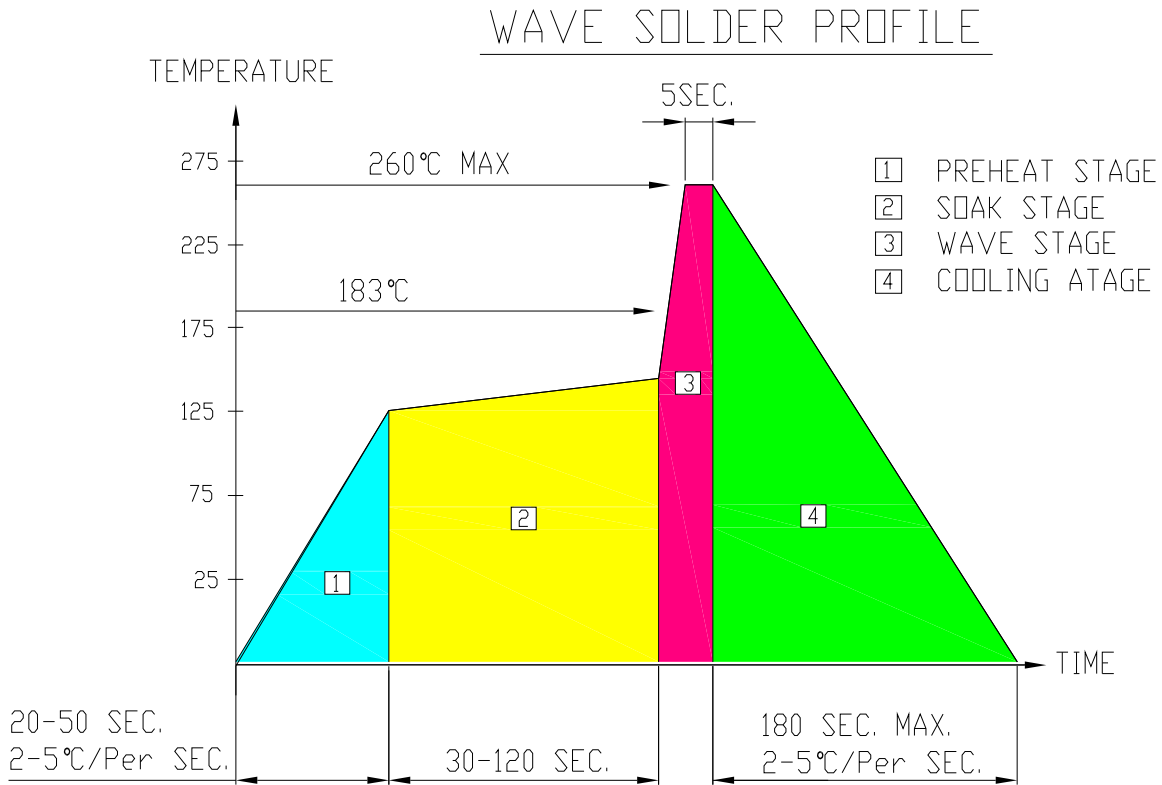
Fig.7 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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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 ≤ 3 sec under 350°C.



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