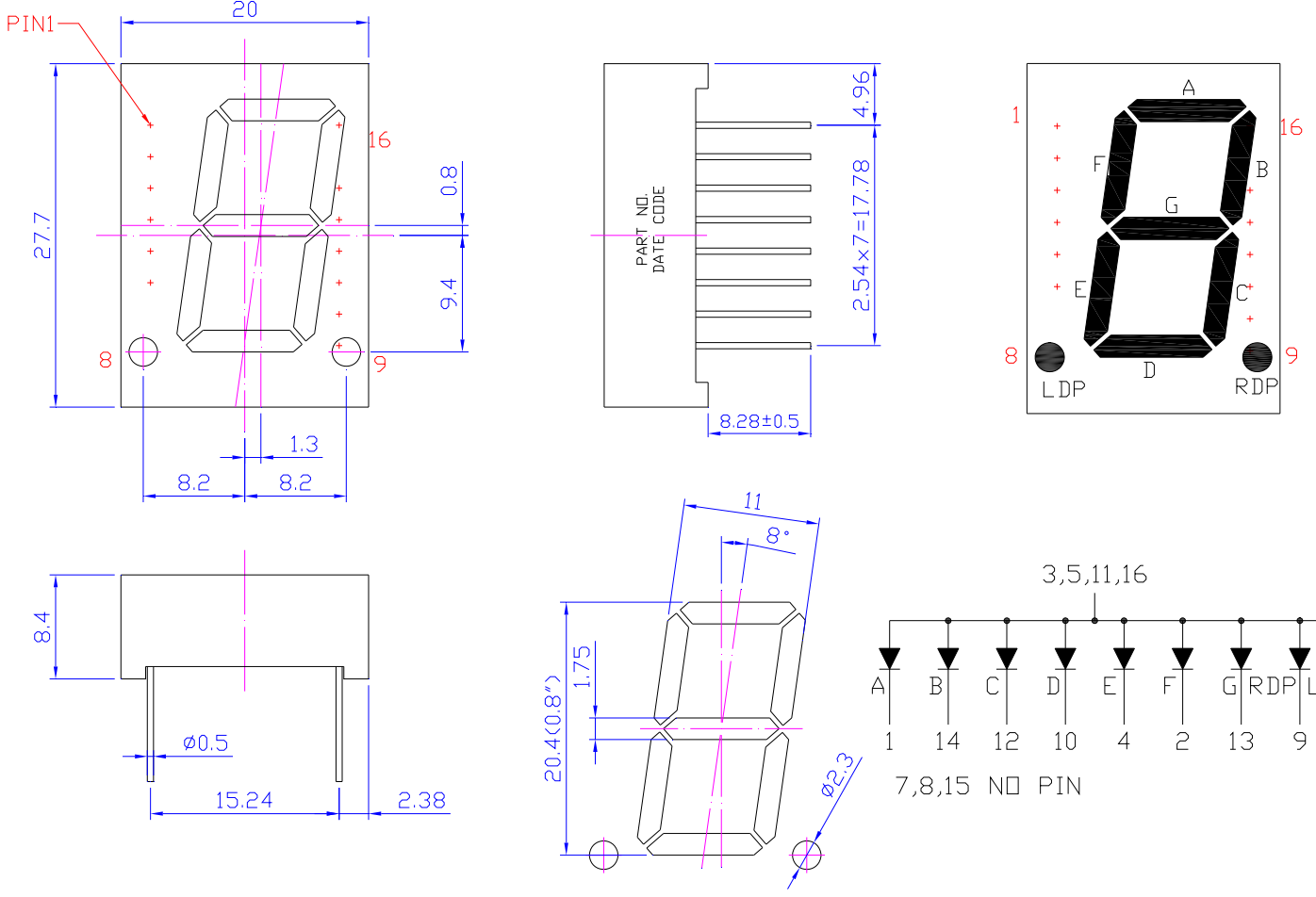


**SPECIFICATIONS** **CDSA80W2WB**
**OUTLINES DIMENSIONS**


- 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	GaN	White	White Segment	Common Anode



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

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



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## OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

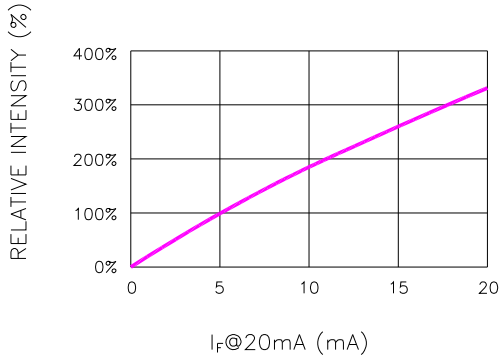


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

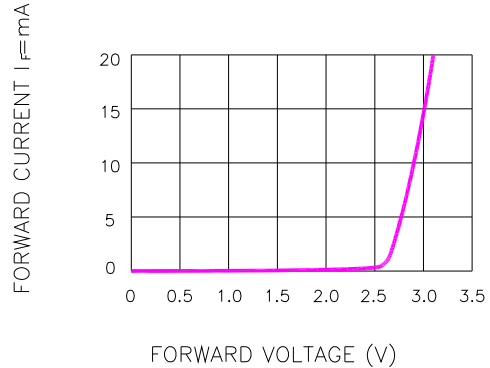


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

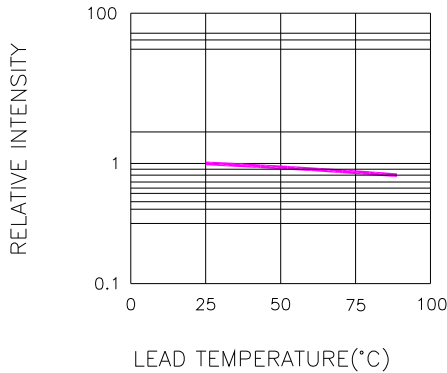


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE  
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

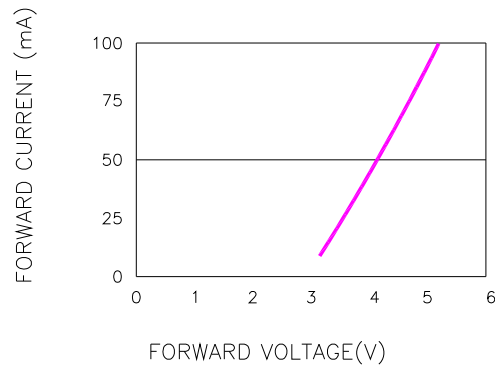


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

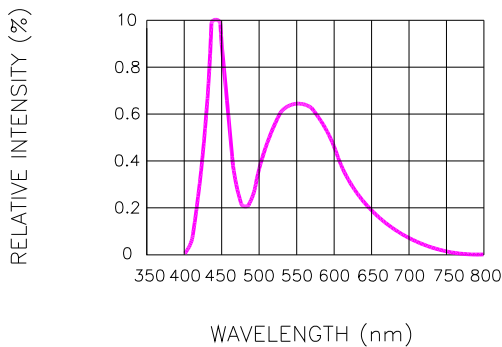


Fig.4 RELATIVE INTENSITY VS. WAVELENGTH

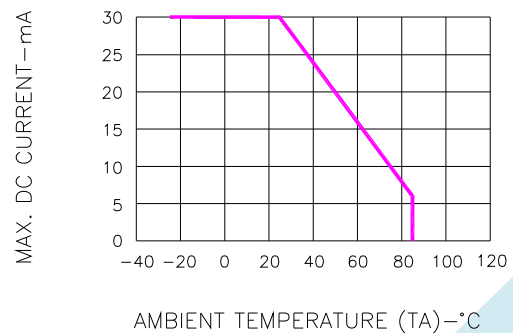


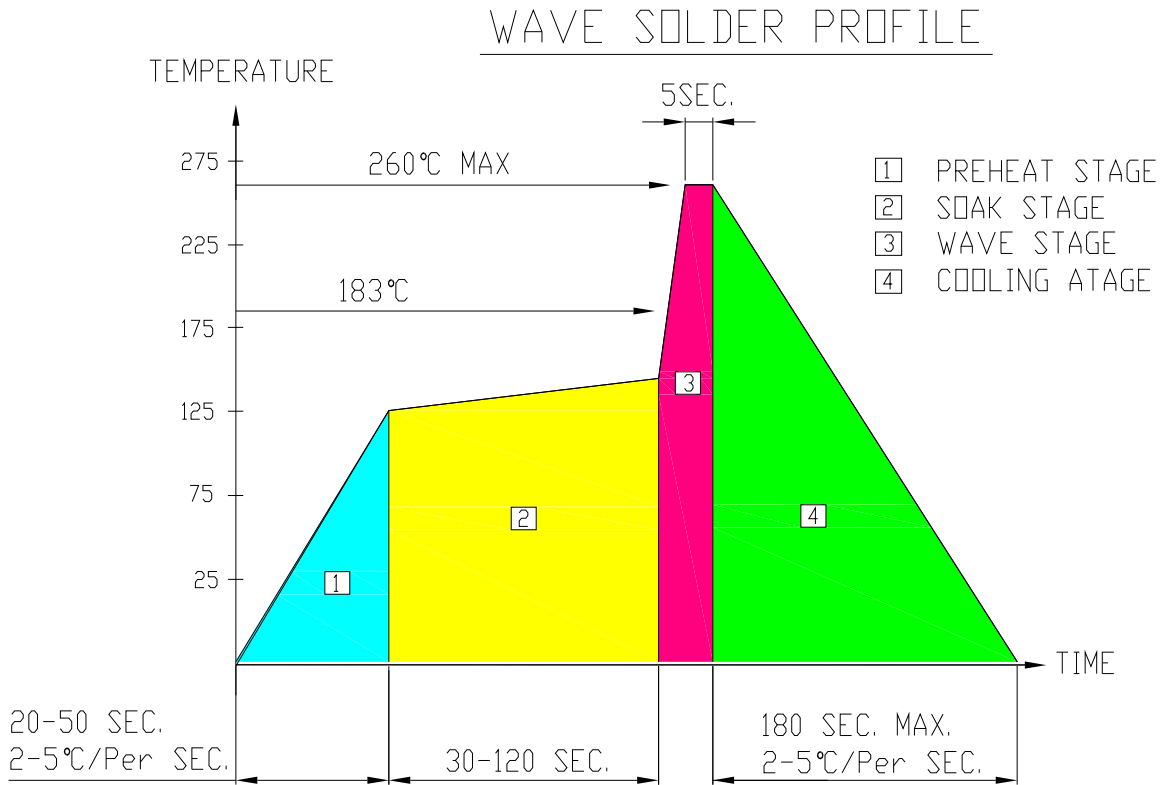
Fig.7 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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## SOLDERING CONDITIONS – DISPLAY TYPE LED

### ● RECOMMEND SOLDERING PROFILE



### ● SOLDERING IRON

Basic spec is  $\leq 4$  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  $\leq 3$  sec under 350°C.



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