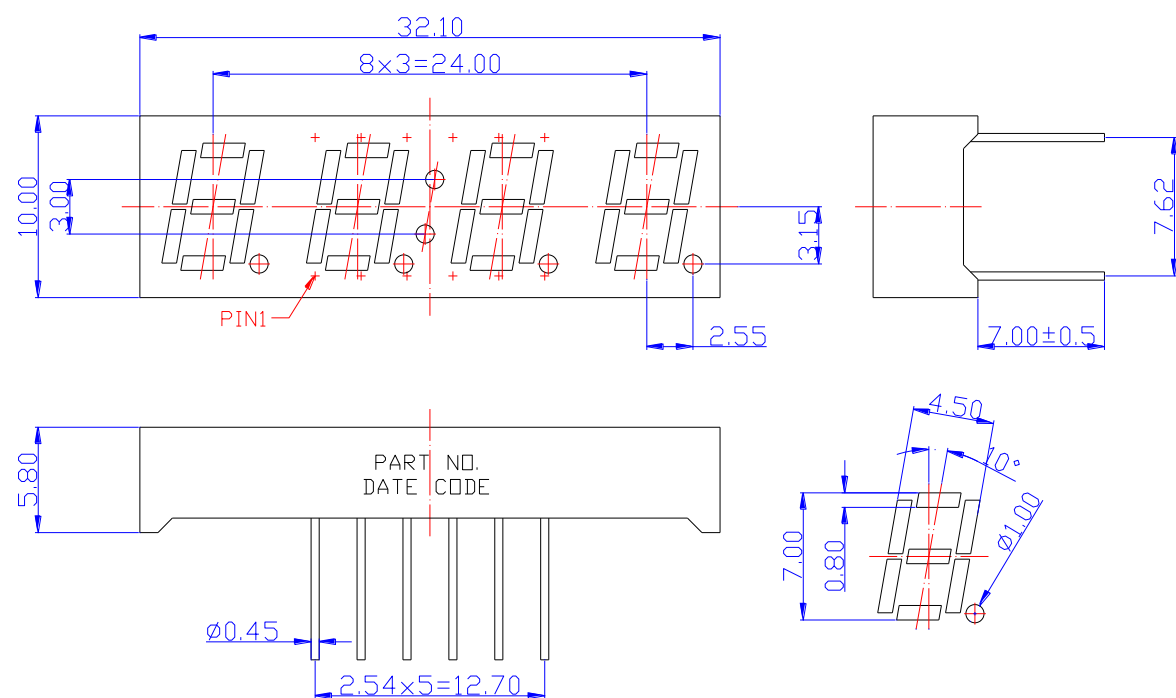


**SPECIFICATIONS** **CDQC28GT2WB**

### OUTLINES DIMENSIONS



The drawing shows the following dimensions:

- Top View:** Total length 32.10 mm, LED array length 24.00 mm (8x3=24.00), total width 10.00 mm, mounting hole diameter 3.00 mm, distance from hole to LED array 2.55 mm, and distance from LED array to mounting hole 3.15 mm.
- Side View:** Total height 7.62 mm, mounting hole diameter 7.00 ± 0.5 mm.
- Bottom View:** Mounting tab width 5.80 mm, lead diameter 0.45 mm, and lead length 12.70 mm (2.54x5=12.70).
- Detail View:** Lead length 7.00 mm, lead diameter 0.80 mm, lead angle 10°, and lead spacing 4.50 mm.

**Notes:**

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

Part Number	Chip Material	Color of Emission	Segment/Face	Description
CDQC28GT2WB	InGaN	Green	White/Black	Common Cathode



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

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	120	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			

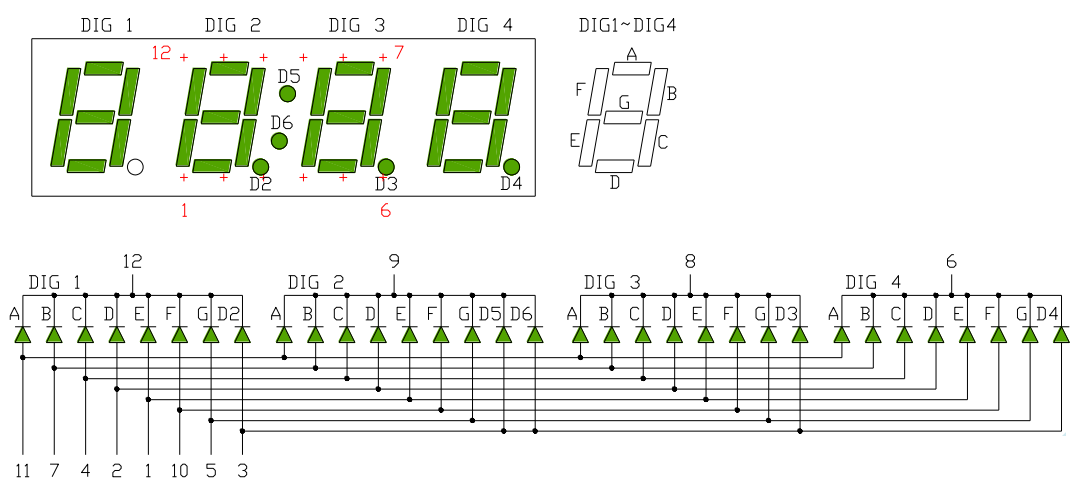
**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 10mA	-	100	-	mcd
Forward Voltage	VF	IF = 20mA	-	3.2	-	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Dominant Wavelength	λD	IF = 20mA	-	525	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	30	-	nm



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## TYPICAL INTERNAL EQUIVALENT CIRCUIT



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## OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

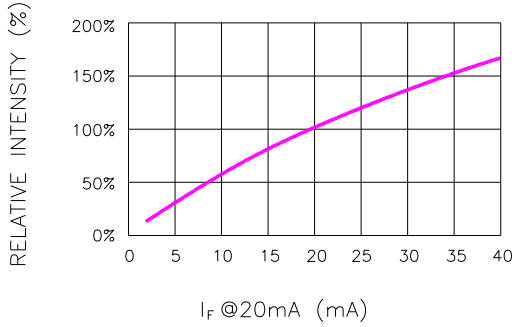


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

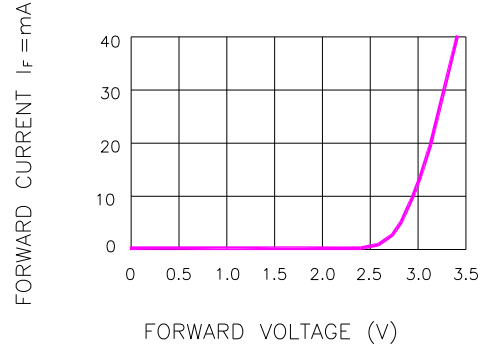


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

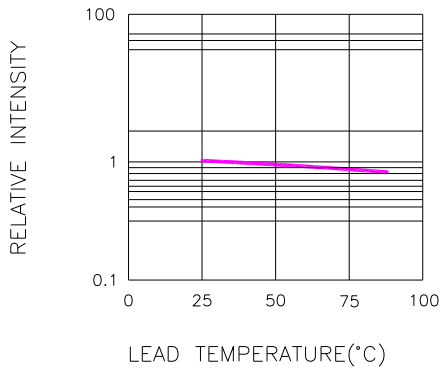


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE  
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

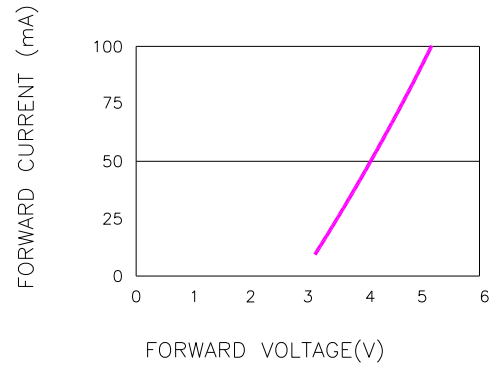


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

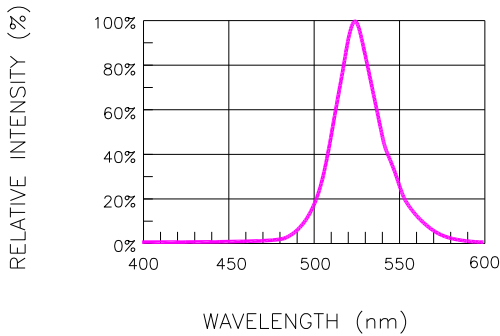


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

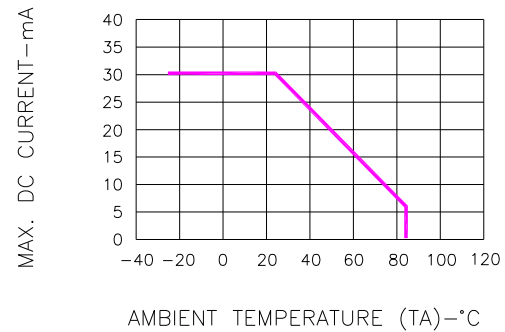


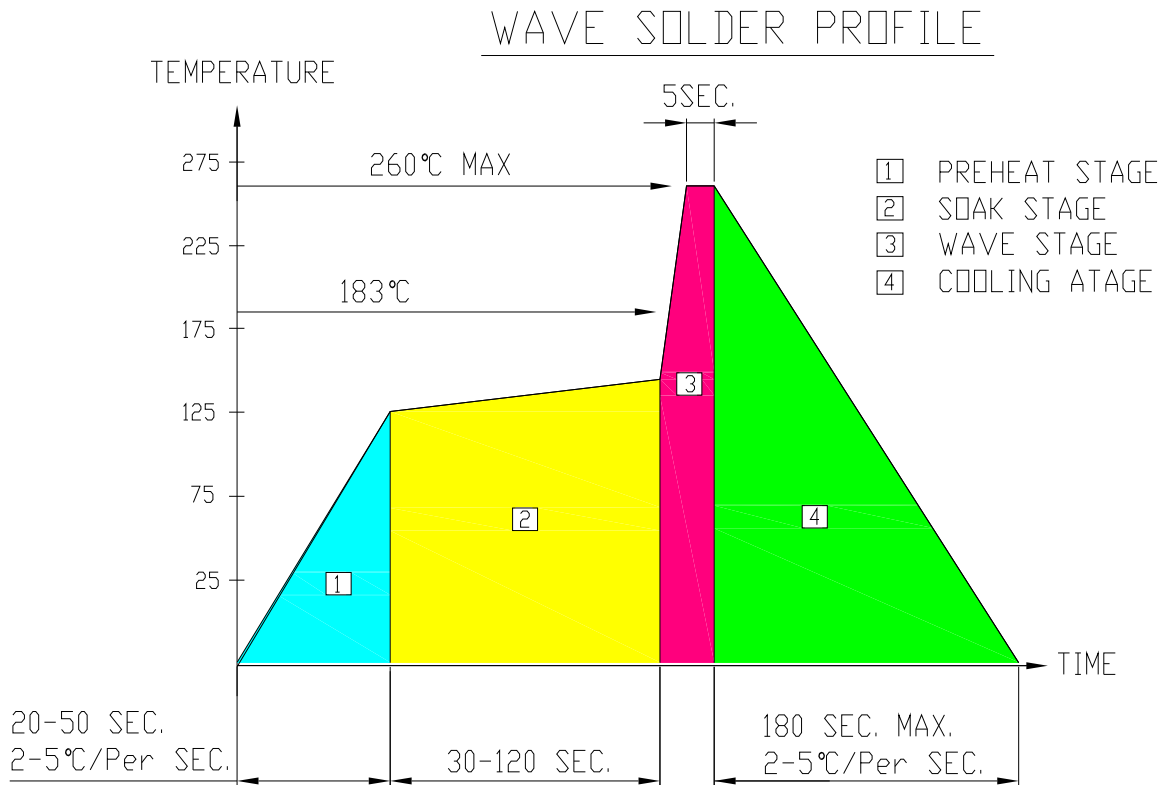
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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## SOLDERING CONDITIONS – DISPLAY TYPE LED

### ● RECOMMEND SOLDERING PROFILE



### ● 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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