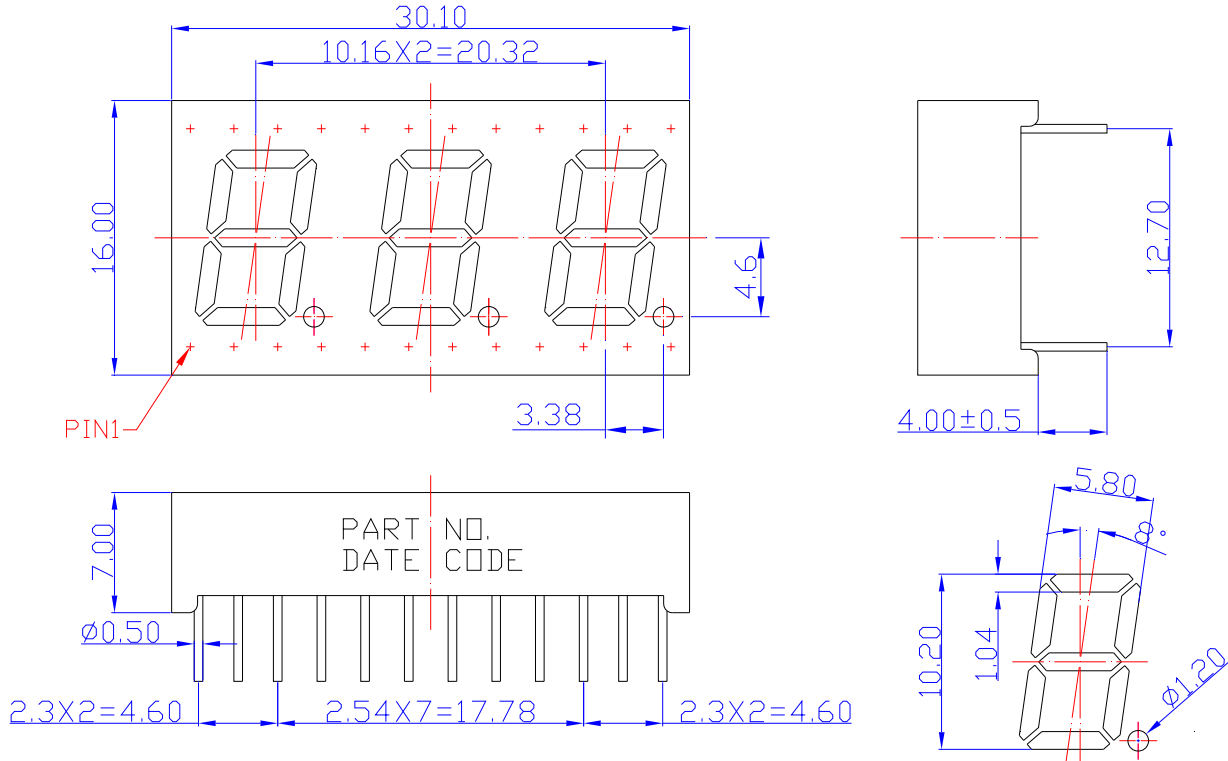


SPECIFICATIONS **CDTC40B2WF**

OUTLINES DIMENSIONS



The technical drawing illustrates the dimensions of the CDTC40B2WF LED package. The top view shows a rectangular package with a total width of 30.10 mm and a height of 16.00 mm. The LED chip array is centered, with a width of 20.32 mm (10.16 mm x 2) and a height of 4.6 mm. The distance from the left edge to the first chip is 3.38 mm. The side view shows a total height of 12.70 mm and a base width of 4.00 ± 0.5 mm. The bottom view shows a package height of 7.00 mm and a base diameter of 0.50 mm. The base features a central area for marking (PART NO., DATE, CODE) and two side sections, each 4.60 mm wide (2.3 mm x 2). The central chip area is 17.78 mm wide (2.54 mm x 7). A detailed view of the chip shows a width of 5.80 mm, a height of 1.04 mm, and a diameter of 1.20 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	Lens Type	Description
CDTC40B2WF	InGaN	Blue	White Segment	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	100	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			

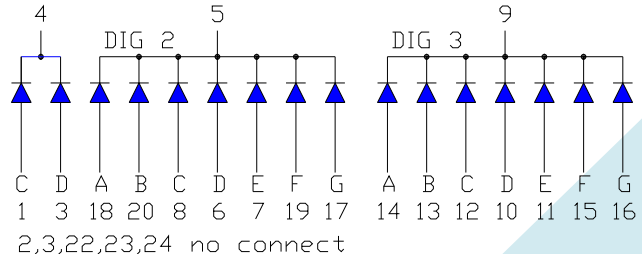
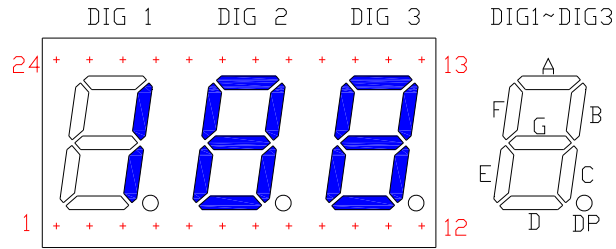
OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	-	40	-	mcd
Forward Voltage	VF	IF = 20mA	-	3.0	4.0	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Dominant Wavelength	λD	IF = 20mA	460	465	475	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	40	-	nm



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TYPICAL INTERNAL EQUIVALENT CIRCUIT



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OPTICAL CHARACTERISTIC CURVES

Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

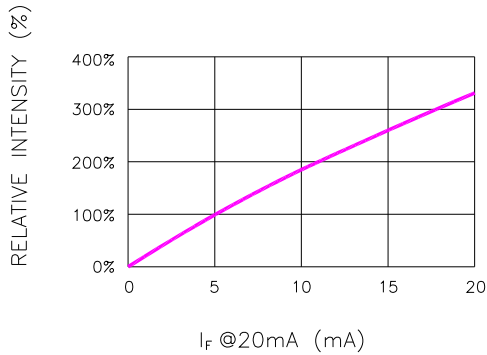


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

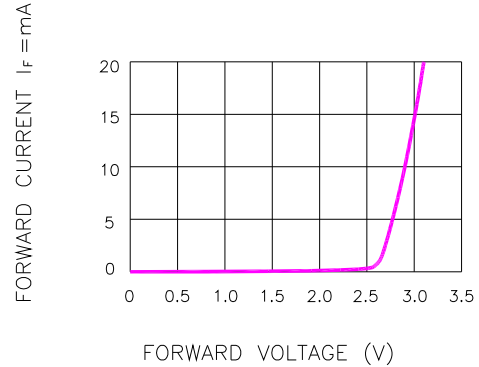


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

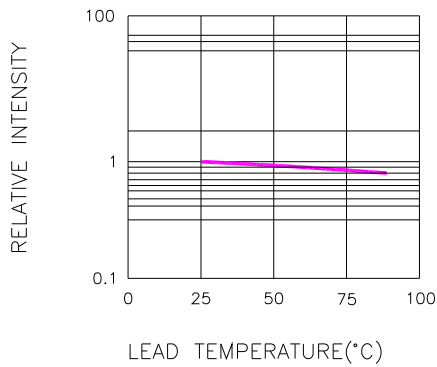


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

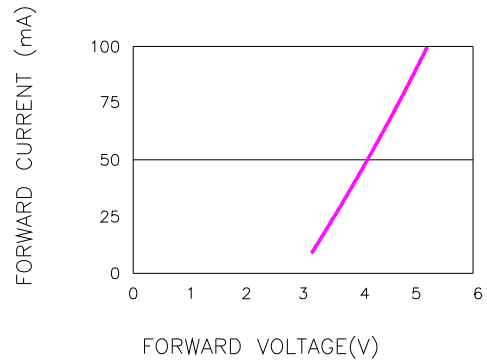


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

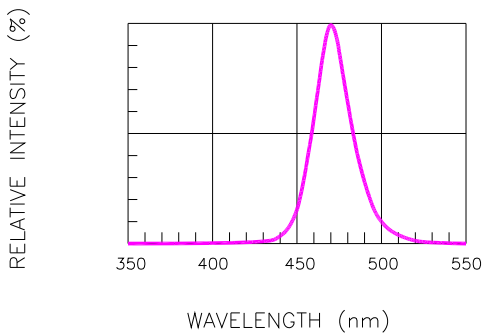


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

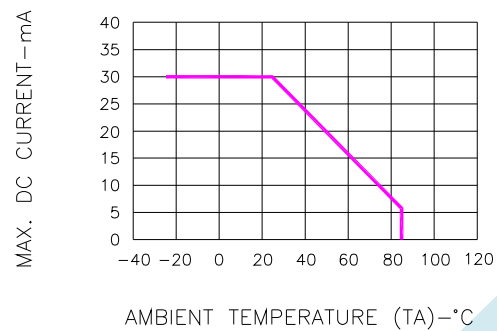


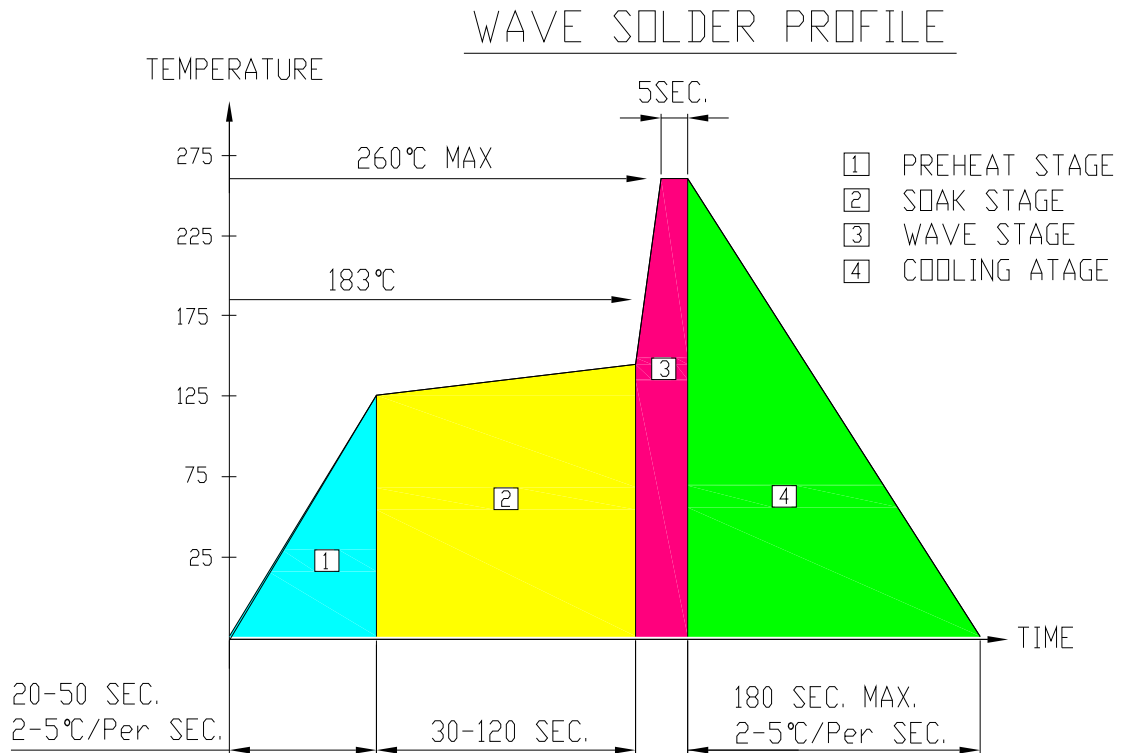
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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SOLDERING CONDITIONS – DISPLAY TYPE LED

● RECOMMEND SOLDERING PROFILE



● SOLDERING IRON

Basic spec is ≤ 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 ≤ 4 sec under 245°C.



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