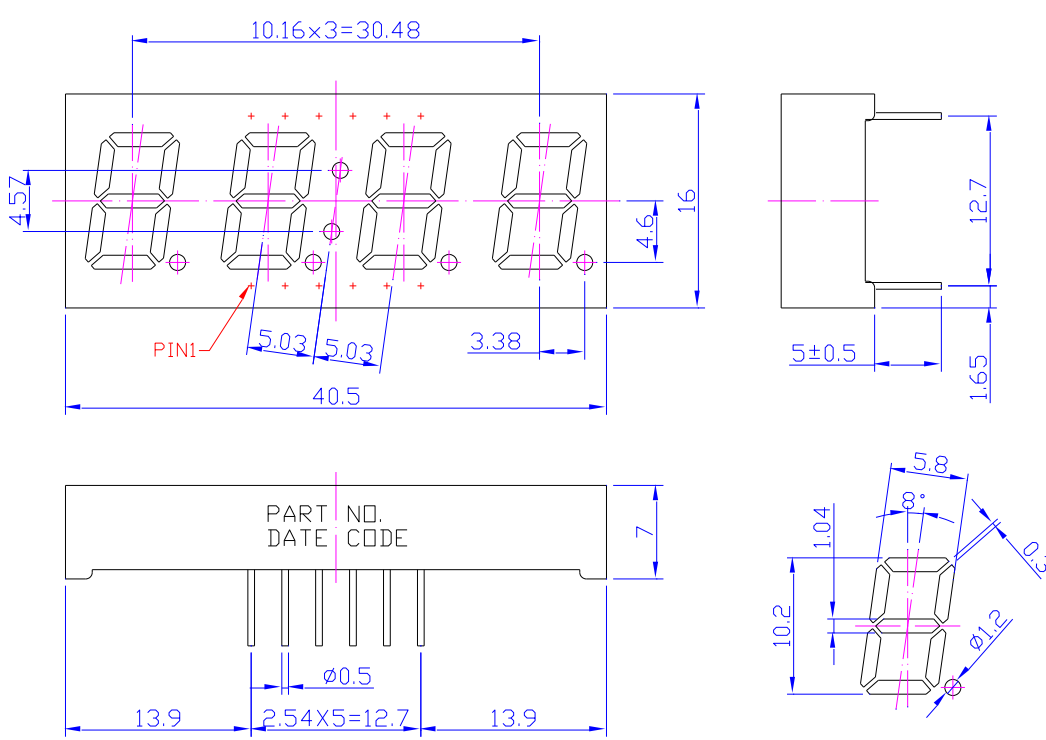


SPECIFICATIONS **CDQA40R2WBF**

OUTLINES DIMENSIONS



The technical drawings show the following dimensions:

- Top View:** Total width 40.5mm, total height 16mm. Three lens segments are spaced 10.16mm apart (3 segments = 30.48mm). Individual lens width is 4.57mm. Pin 1 is located 5.03mm from the center of the first lens. The distance from the center of the first lens to the right edge is 3.38mm.
- Side View:** Total height 12.7mm. The lens height is 1.65mm. The base width is 5±0.5mm.
- Bottom View:** Total width 40.5mm (13.9mm + 2.54mm x 5 + 13.9mm). The chip width is 7mm. The chip pitch is 2.54mm (5 chips = 12.7mm). The chip diameter is 0.5mm. The chip is marked with PART NO., DATE, and CODE.
- Detail View:** Lens diameter is 10.2mm. The lens height is 1.04mm. The lens is 5.8mm wide at the top and tapers to 0.3mm at the bottom. The lens is 8° wide at the top. The lens is 0.3mm thick at the bottom. The lens is 1.2mm in diameter at the bottom.

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
CDQA40R2WBF	InGaAlP	Red	White Segment	Common Anode



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	70	mW
Pulse Forward Current	IFP	90	mA
Continuous Forward Current	IF	25	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			

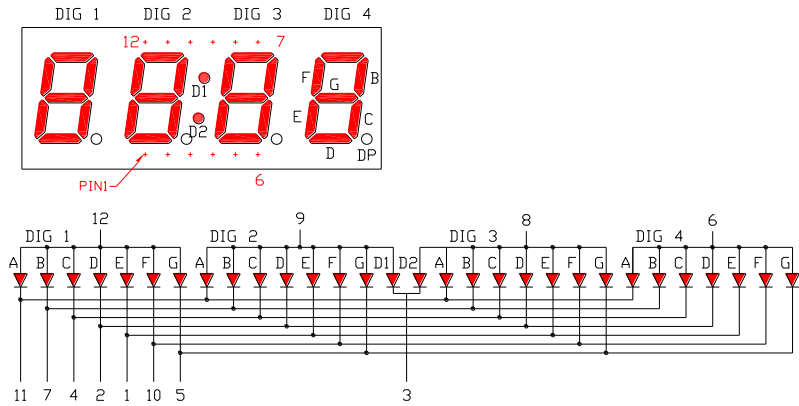
OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	-	60	-	mcd
Forward Voltage	VF	IF = 20mA	-	2.0	2.4	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Peak Wavelength	λP	IF = 20mA	-	632	-	nm
Dominant Wavelength	λD	IF = 20mA	619	624	629	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	20	-	nm



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TYPICAL INTERNAL EQUIVALENT CIRCUIT



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OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

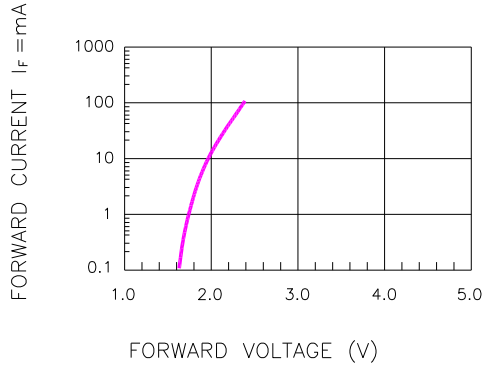


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

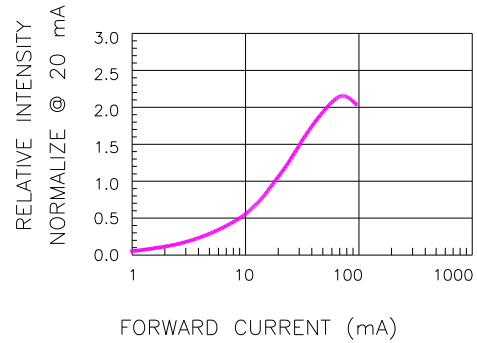


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

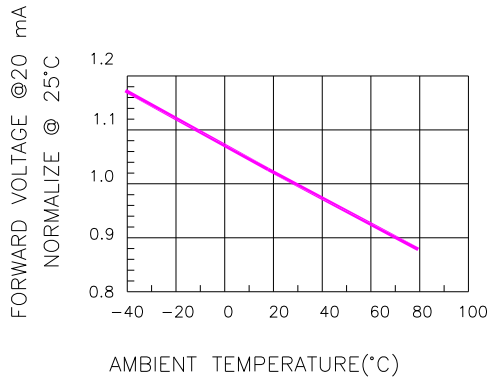


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

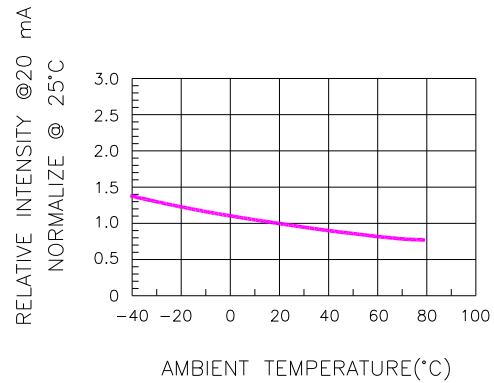


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

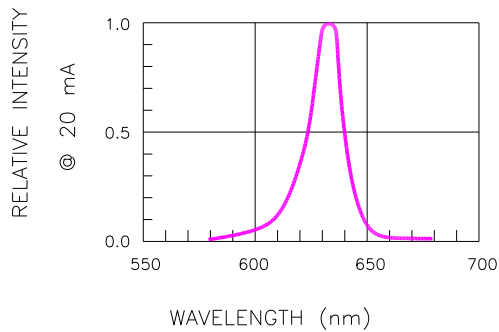


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

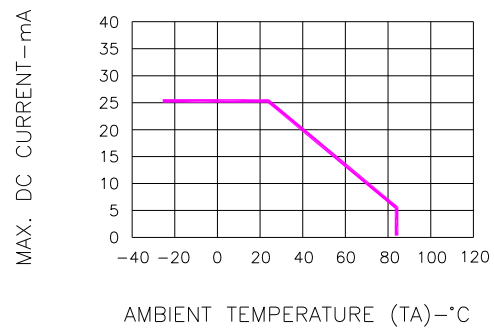
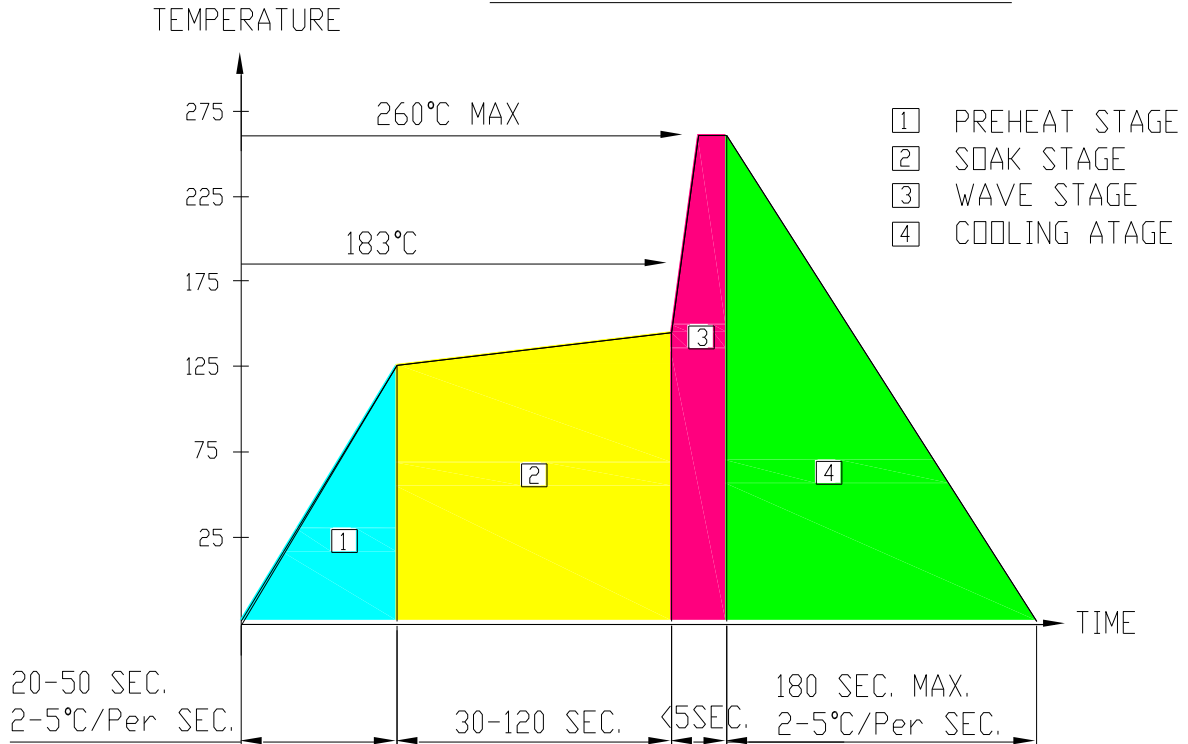


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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SOLDERING CONDITIONS – DISPLAY TYPE LED
● RECOMMEND SOLDERING PROFILE
WAVE SOLDER 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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