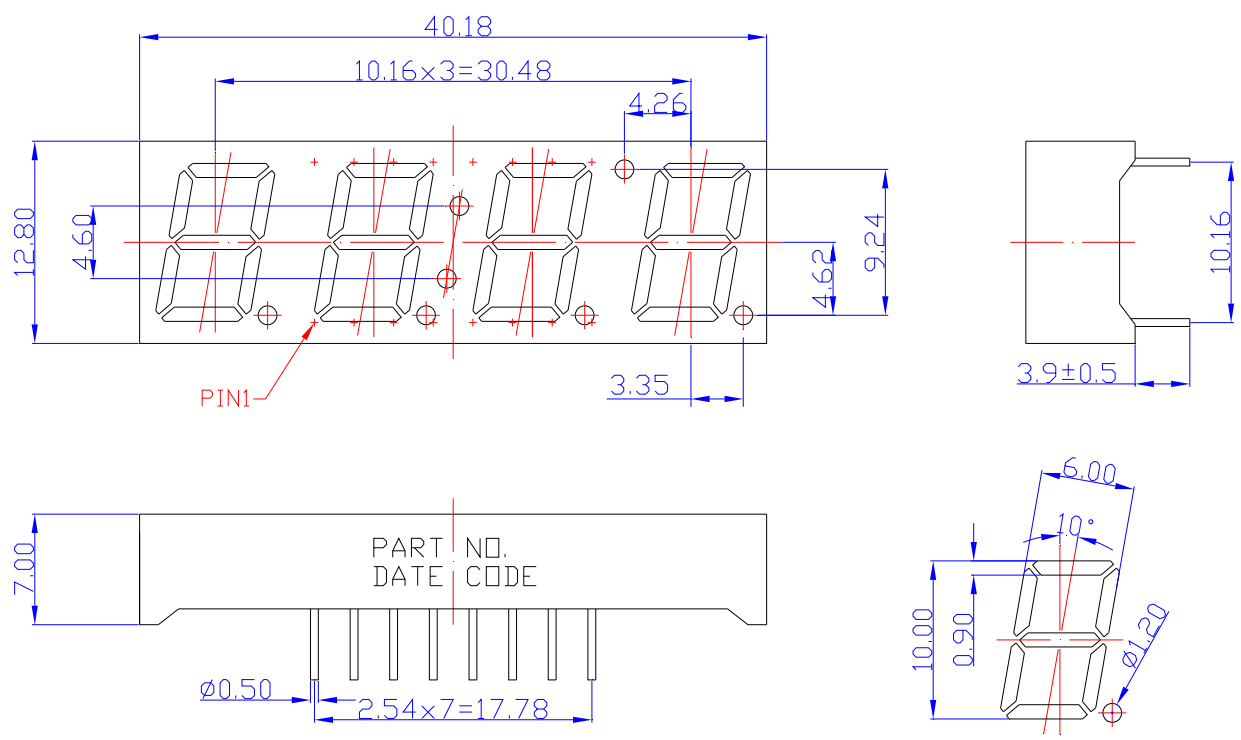


**SPECIFICATIONS** **CDQA39RR2WF**

### OUTLINES DIMENSIONS



The technical drawing illustrates the dimensions of the CDQA39RR2WF LED package. The top view shows a total width of 40.18 mm, with three lens segments spaced at 10.16 mm each (total 30.48 mm). The height is 12.80 mm. The side view shows a height of 10.16 mm and a base width of 3.9 ± 0.5 mm. The perspective view shows a lens diameter of 6.00 mm, a height of 10.00 mm, and a 10-degree angle. The bottom view shows a lead length of 7.00 mm and a lead pitch of 2.54 mm (total 17.78 mm for 7 leads). A diameter of 0.50 mm is also indicated for the leads. A 'PIN1' label points to the first lens segment.

**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
CDQA39RR2WF	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			

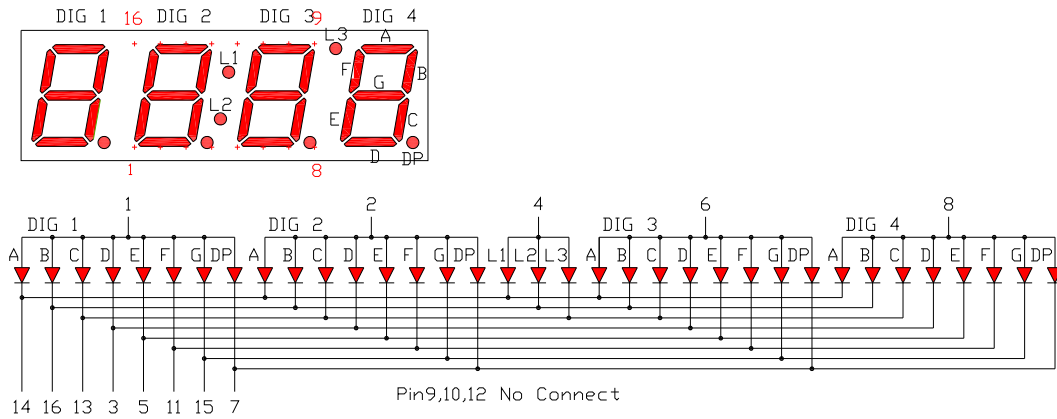
**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	-	55	-	mcd
Forward Voltage	VF	IF = 20mA	-	2.0	2.6	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Peak Wavelength	λP	IF = 20mA	-	650	-	nm
Dominant Wavelength	λD	IF = 20mA	-	639	-	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)

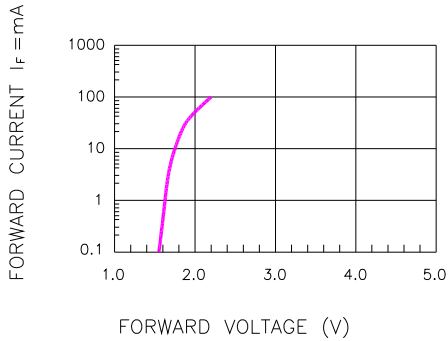


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

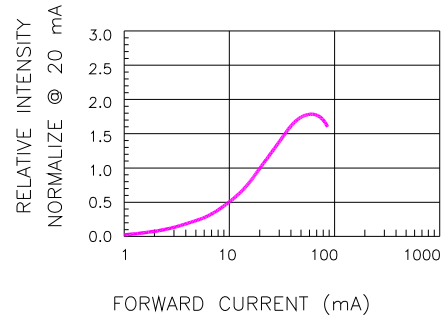


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

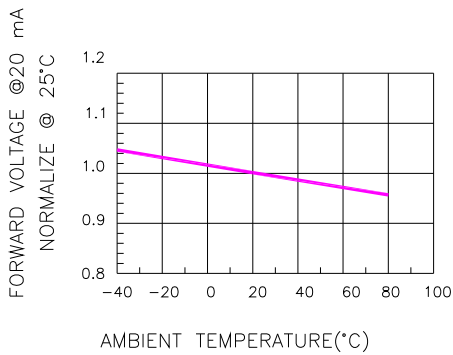


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

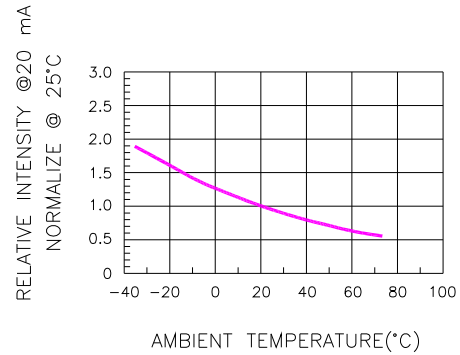


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

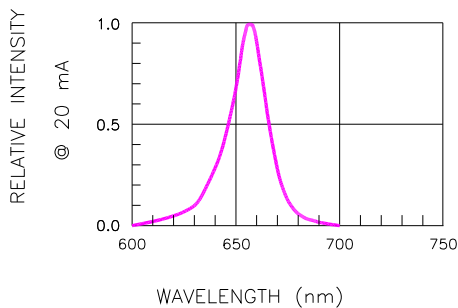


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

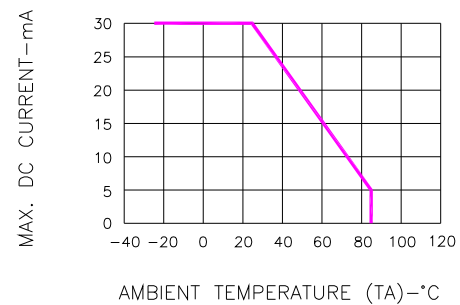


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

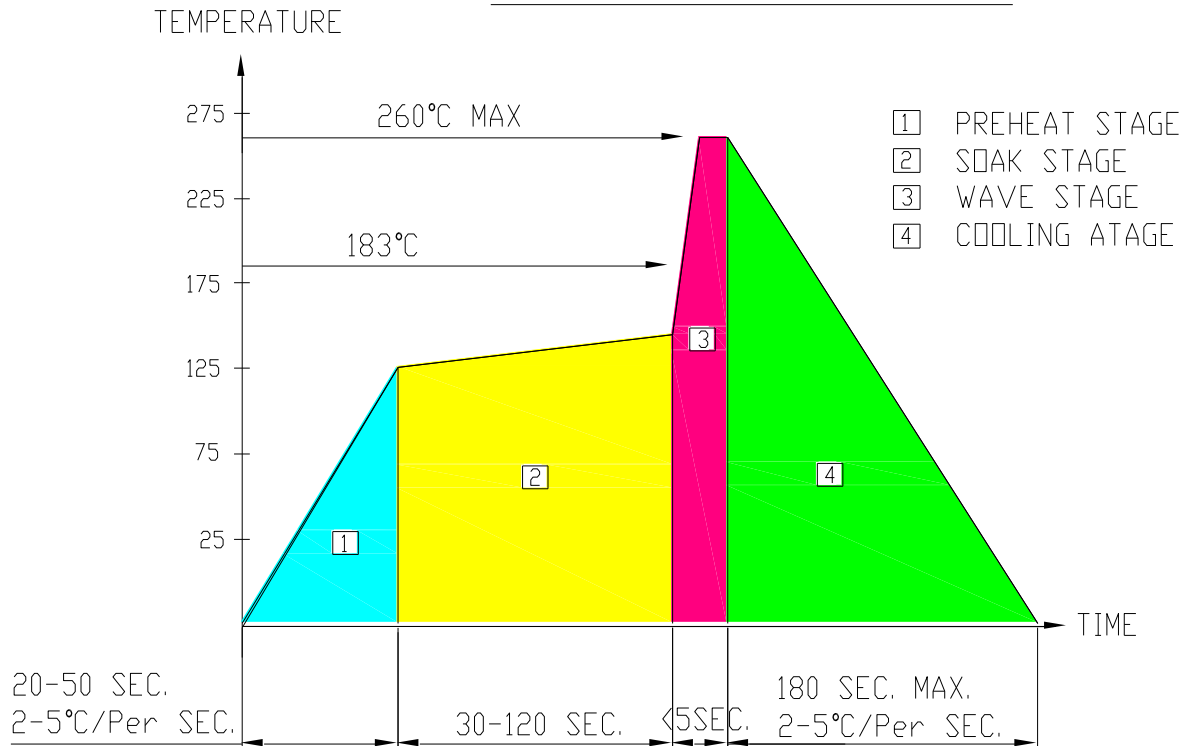


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## SOLDERING CONDITIONS – DISPLAY TYPE LED

### ● RECOMMEND SOLDERING PROFILE

#### WAVE SOLDER PROFILE



### ● SOLDERING IRON

Basic spec is  $\leq 4$  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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