LUCKY LIGHT

KW2-502CRB
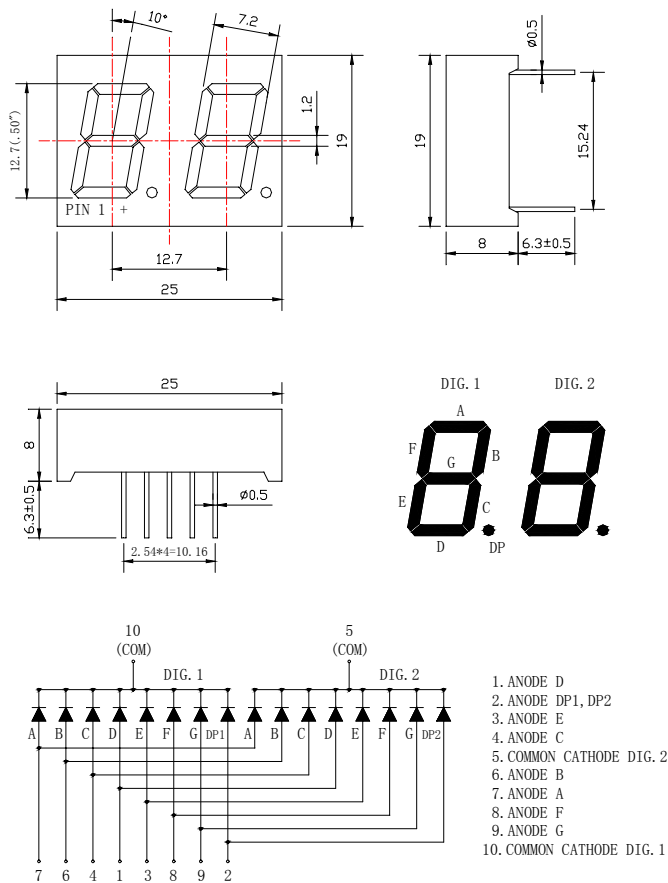
DATA SHEET

QC: ENG: Prepared By:

LUCKY LIGHT

Features

♦ 0.50″Dual Digit Super Red

♦ Common Cathode (Common PIN 10 And PIN 5)

♦ Black Face，White Segment

Package Dimension:

1. ANODE D
2. ANODE DP1, DP2
3. ANODE E
4. ANODE C
5. COMMON CATHODE DIG. 2
6. ANODE B
7. ANODE A
8. ANODE F
9. ANODE G
10. COMMON CATHODE DIG. 1

Part NO.	Chip Material	Face Color	Source Color
KW2-502CRB	GaP	Black/white	Red

Notes:

1. All dimensions are in millimeters (inches).

2. Tolerance is ±0.25(.010")mm unless otherwise noted.

3. Protruded resin under flange is 1.0mm(.04") max.

4. Lead spacing is measured where the leads emerge from the package.

5. Specifications are subject to change without notice.

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Absolute Maximum Ratings at Ta=25℃

| Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	50	mA
Derating Linear From 50℃	0.4	mA/℃
Reverse Voltage	5	V
Operating Temperature Range	-40℃ to +80℃	
Storage Temperature Range	-40℃ to +80℃	
Lead Soldering Temperature [4mm(.157")From Body]	260℃ for 5 Seconds	

Electrical Optical Characteristics at Ta=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_V	600	800	---	μcd	I_F=20mA (Note 1)
Viewing Angle	$2\theta_{1/2}$	---	---	---	Deg	(Note 2)
Peak Emission Wavelength	λ_p	695	700	705	nm	I_F=20mA
Dominant Wavelength	λ_d	---	697	---	nm	I_F=20mA (Note 3)
Spectral Line Half-Width	$\triangle\lambda$	24	29	34	nm	I_F=20mA
Forward Voltage	V_F	---	2.1	2.8	V	I_F=20mA
Reverse Current	I_R	---	---	100	μA	V_R=5V

Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

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Typical Electrical / Optical Characteristics Curves
(25℃ Ambient Temperature Unless Otherwise Noted)

Spectral Radiance (Peak @ 700nm)

Normalized Response vs Wave Length(nm)
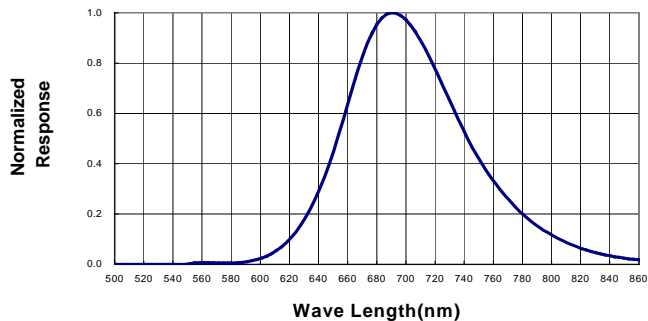
**Relative Luminous Intensity
vs Forward Current**

Relative Intensity (LOP@20mA=1) vs Forward Current IF(mA)
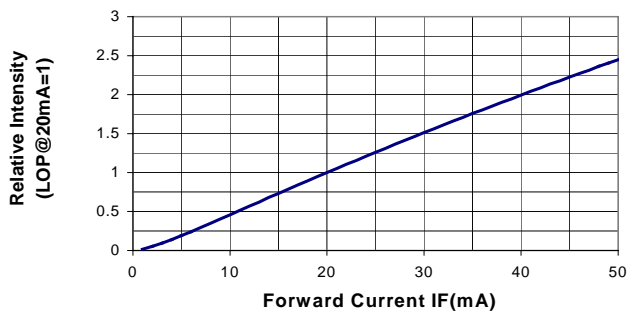
**Forward Current
vs Forward Voltage**

Forward Current IF(mA) vs Forward Voltage VF(V)