

Kingbright®

2x3mm QUAD-LEVEL LED INDICATORS

L-914CK/4H BRIGHT RED L-914CK/4G GREEN
 L-914CK/4I HIGH EFFICIENCY RED L-914CK/4Y YELLOW

Features

- 2 x 3mm LED
- QUAD-LEVEL DESIGN, SAVE BOARD SPACE.
- DIFFERENT COLOR COMBINATION AVAILABLE
- BLACK CASE ENHANCES CONTRAST.

Description

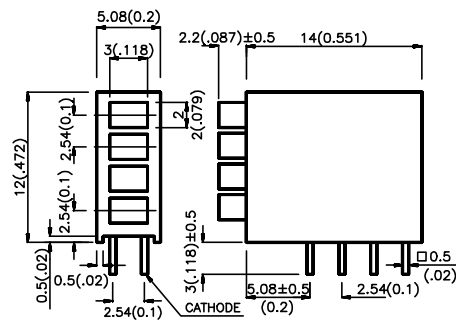
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

Package Dimensions



- Notes:
1. All dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
 3. Lead spacing is measured where the lead emerge package.
 4. Specifications are subjected to change without notice.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 10 mA | | Viewing Angle 2θ1/2 |
|-------------|---------------------------------|-----------------|---------------------|------|---|
| | | | Min. | Max. | |
| L-914CK/4HD | BRIGHT RED (GaP) | RED DIFFUSED | 0.2 | 0.5 | 100° |
| L-914CK/4ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 2 | 12.5 | 100° |
| L-914CK/4GD | GREEN (GaP) | GREEN DIFFUSED | 2 | 8 | 100° |
| L-914CK/4YD | YELLOW (GaAsP/GaP) | YELLOW DIFFUSED | 2 | 8 | 100° |

Note:
 1. $\theta 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

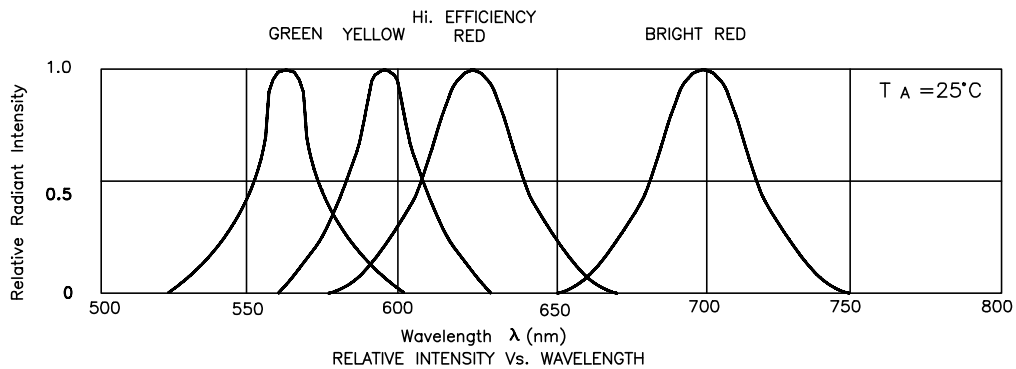
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-------------------------|-------------------------|--|--------------------------|--------------------------|-------|-----------------|
| λ_{peak} | Peak Wavelength | Bright Red High Efficiency Red Green Yellow | 700 625 565 590 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | Bright Red High Efficiency Red Green Yellow | 45 45 30 35 | | nm | IF=20mA |
| C | Capacitance | Bright Red High Efficiency Red Green Yellow | 40 12 45 10 | | pF | VF=0V;f=1MHz |
| V _F | Forward Voltage | Bright Red High Efficiency Red Green Yellow | 2.0 2.0 2.2 2.1 | 2.5 2.5 2.5 2.5 | V | IF=20mA |
| I _R | Reverse Current | All | 10 | | uA | VR = 5V |

Absolute Maximum Ratings at T_A=25°C

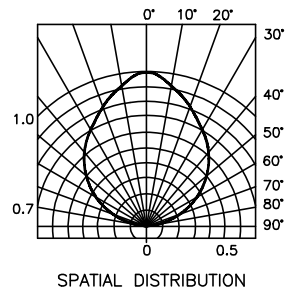
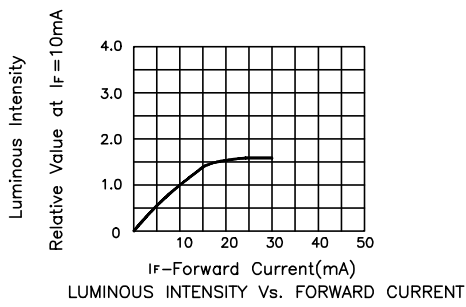
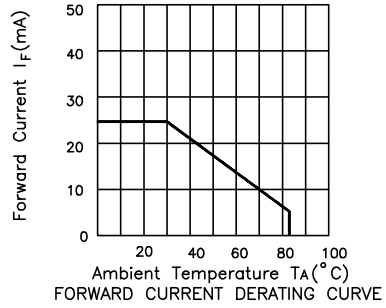
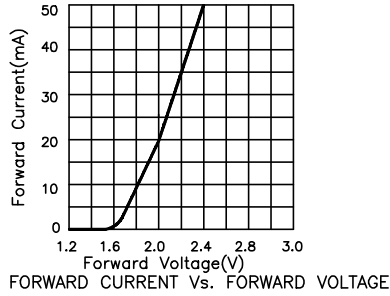
| Parameter | Bright Red | High Efficiency Red | Green | Yellow | Units |
|--------------------------------|----------------------|---------------------|-------|--------|-------|
| Power dissipation | 120 | 105 | 105 | 105 | mW |
| DC Forward Current | 25 | 30 | 25 | 30 | mA |
| Peak Forward Current [1] | 150 | 150 | 150 | 150 | mA |
| Reverse Voltage | 5 | 5 | 5 | 5 | V |
| Operating/Storage Temperature | -40 °C To +85 °C | | | | |
| Lead Soldering Temperature [2] | 260 °C For 5 Seconds | | | | |

Notes:

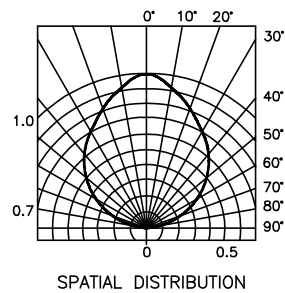
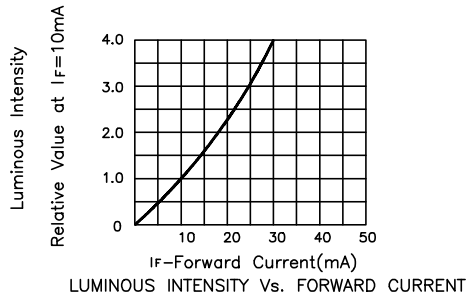
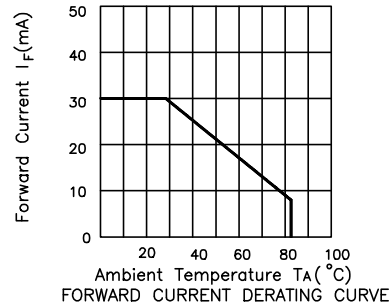
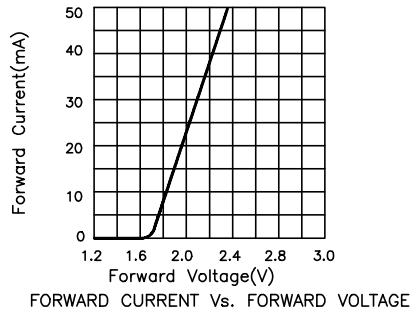
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



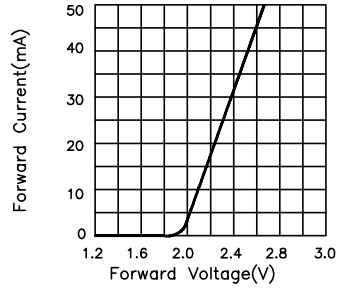
Bright Red L-914CK/4HD



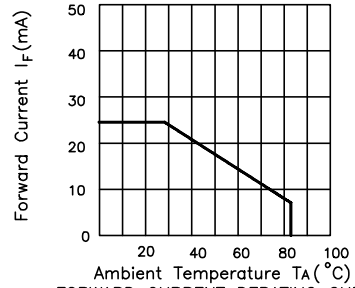
High Efficiency Red L-914CK/4ID



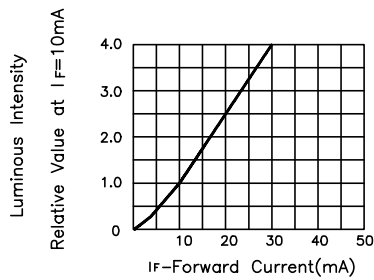
Green L-914CK/4GD



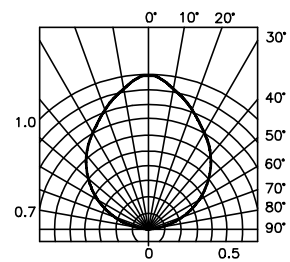
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

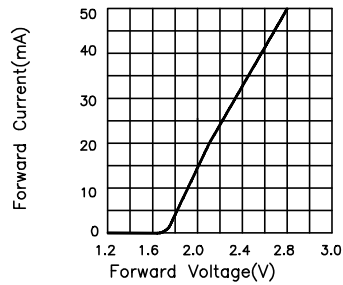


LUMINOUS INTENSITY Vs. FORWARD CURRENT

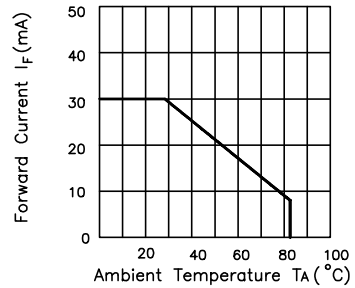


SPATIAL DISTRIBUTION

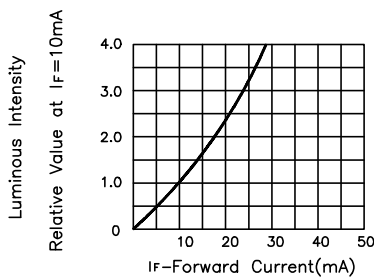
Yellow L-914CK/4YD



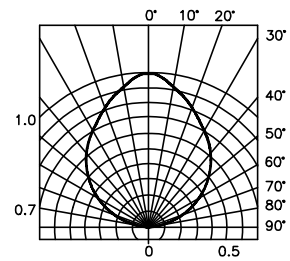
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION