

Kingbright®

2X3mm RECTANGULAR SOLID STATE LAMPS

L-914H BRIGHT RED
L-914E ORANGE
L-914PG PURE GREEN

L-914G GREEN
L-914Y YELLOW

Features

- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- LONG LIFE-SOLID STATE RELIABILITY.

Description

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

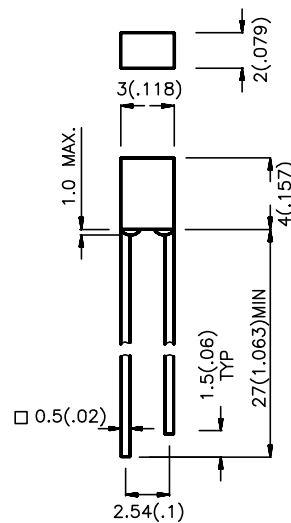
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Orange 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.

The Pure Green source color devices are made with Gallium Phosphide Green 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-914HD	BRIGHT RED (GaP)	RED DIFFUSED	0.2	0.5	100°
L-914HT	BRIGHT RED (GaP)	RED TRANS.	0.5	1.25	90°
L-914ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	2	1.25	100°
L-914ET	ORANGE (GaAsP/GaP)	ORANGE TRANS.	3.2	20	90°
L-914GD	GREEN (GaP)	GREEN DIFFUSED	2	8	100°
L-914GT	GREEN GaP)	GREEN TRANS.	5	12.5	90°
L-914AD	YELLOW (GaAsP/GaP)	AMBER DIFFUSED	2	8	100°
L-914AT	YELLOW (GaAsP/GaP)	AMBER TRANS.	5	12.5	90°
L-914PGT	PURE GREEN (GaP)	GREEN TRANS.	0.5	1.5	90°

Notes:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

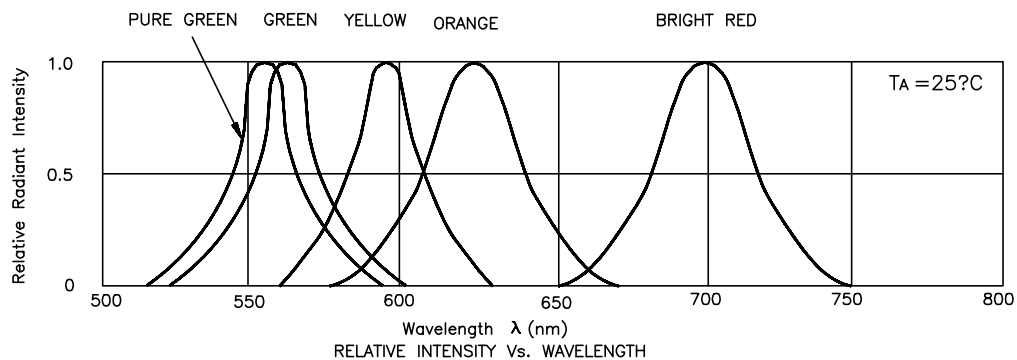
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red Orange Green Yellow Pure Green	700 625 565 590 555		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red Orange Green Yellow Pure Green	45 45 30 35 30		nm	IF=20mA
C	Capacitance	Bright Red Orange Green Yellow Pure Green	40 12 45 10 45		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Bright Red Orange Green Yellow Pure Green	2.0 2.0 2.2 2.1 2.25	2.5 2.5 2.5 2.5 2.6	V	IF=20mA
I_R	Reverse Current	All	10		μA	VR = 5V

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

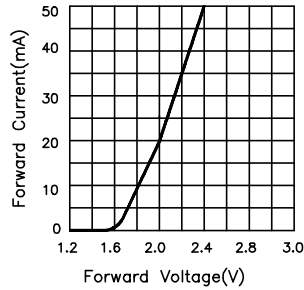
Parameter	Bright Red	orange	Green	Yellow	Pure Green	Units
Power dissipation	120	105	105	105	105	mW
DC Forward Current	25	30	25	30	25	mA
Peak Forward Current [1]	150	150	150	150	150	mA
Reverse Voltage	5	5	5	5	5	V
Operation/Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature [2]	260 °C For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

Notes:

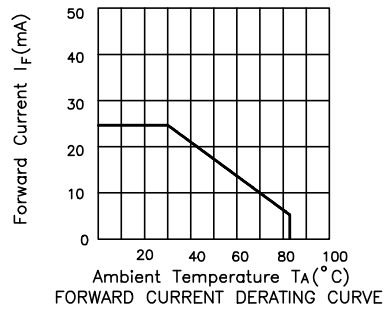
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



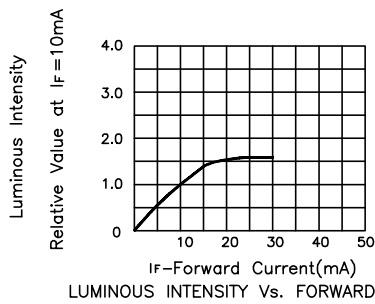
Bright Red L-914HD, L-914HT



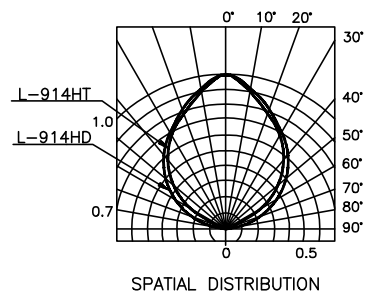
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

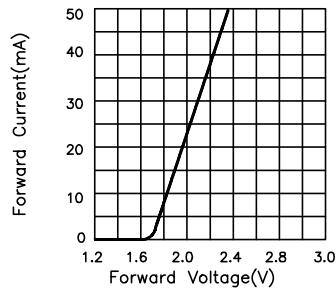


LUMINOUS INTENSITY Vs. FORWARD CURRENT

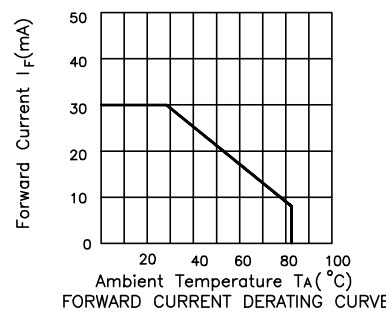


SPATIAL DISTRIBUTION

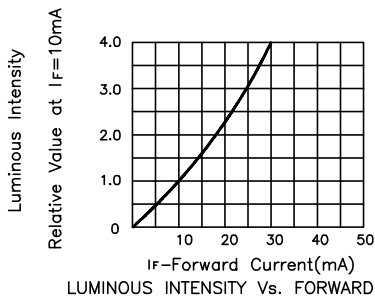
Orange L-914ED, L-914ET



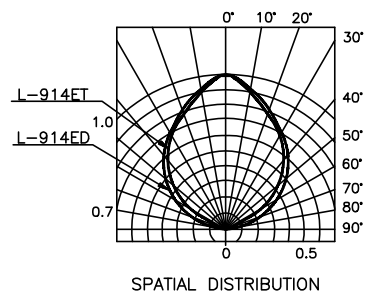
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

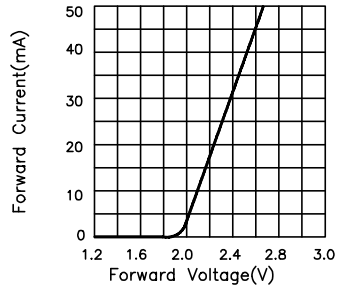


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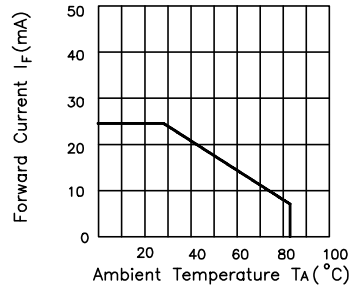


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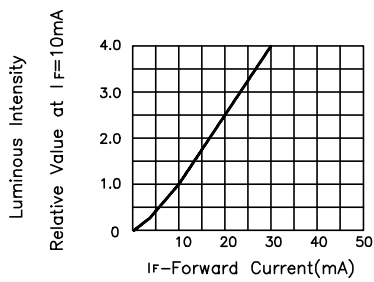
Green L-914GD, L-914GT



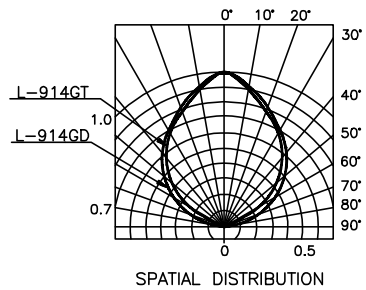
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

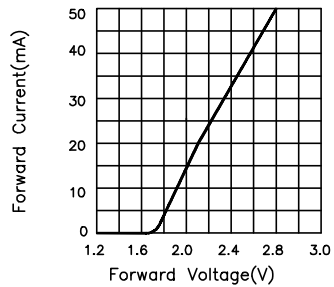


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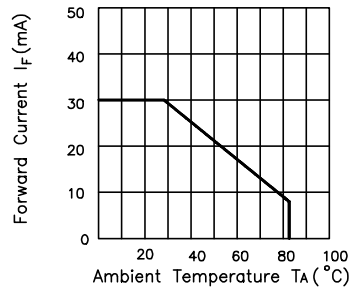


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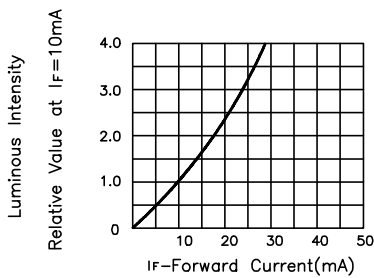
Yellow L-914AD, L-914AT



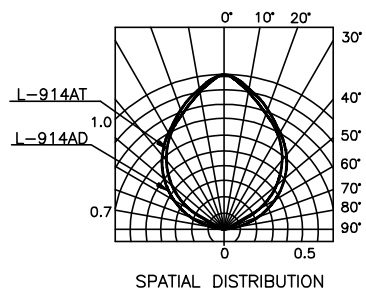
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

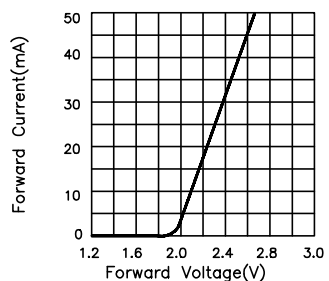


LUMINOUS INTENSITY Vs. FORWARD CURRENT

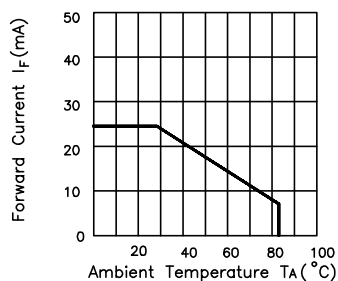


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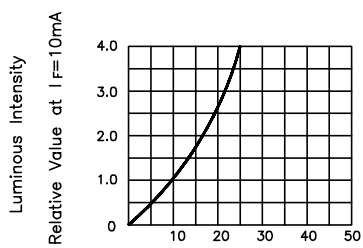
Pure Green L-914PGT



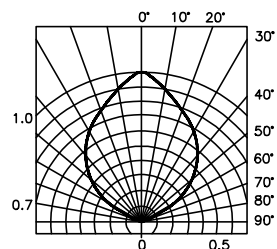
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION