

Miniature LEDs

Order code	Manufacturer code	Description
55-1320	L-1034HD	FLAT TOP 2MM RED LED
55-1325	L-1034ID	FLAT TOP 2MM HE RED LED
55-1330	n/a	FLAT TOP 2MM GREEN LED
55-1335	L-1034YD	FLAT TOP 2MM YELLOW LED

Miniature LEDs	Page 1 of 5
The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

Kingbright®

2mm FLAT TOP LED LAMPS

L-1034H BRIGHT RED

L-1034G GREEN

L-1034I HIGH EFFICIENCY RED

L-1034Y YELLOW

Features

- MOUNTS FLUSH WITH PANEL.
- LOW POWER CONSUMPTION.
- SUITABLE FOR AUDIO PANEL INDICATOR.
- LONG LIFE - SOLID STATE RELIABILITY.

Description

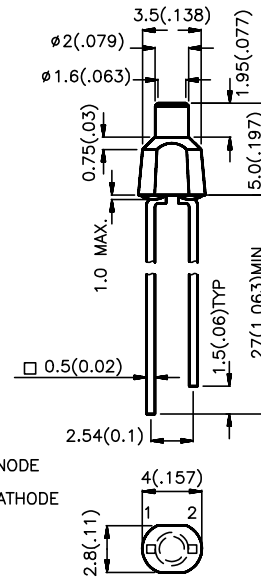
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

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

The 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
			Min.	Max.	
L-1034HD	BRIGHT RED (GaP)	RED DIFFUSED	0.5	2.0	70°
L-1034ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8.0	20.0	70°
L-1034GD	GREEN (GaP)	GREEN DIFFUSED	2.0	8.0	70°
L-1034YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	2.0	8.0	70°

Note:

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

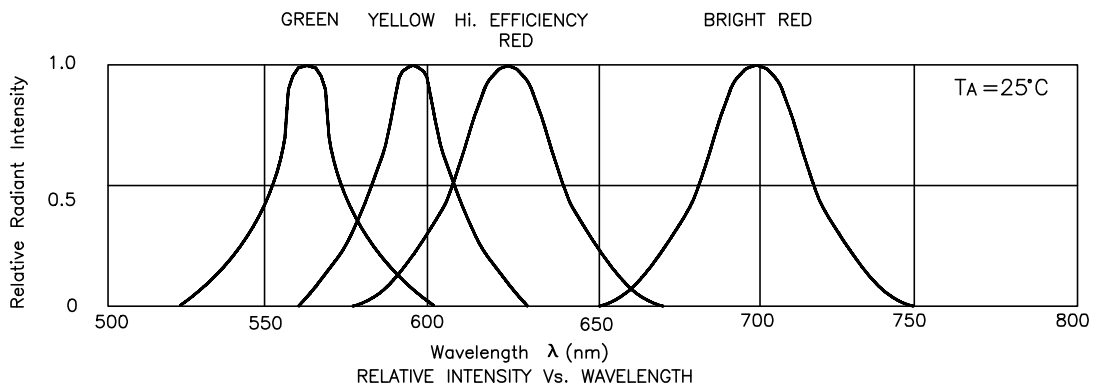
Electrical / Optical Characteristics at T_A=25°C

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

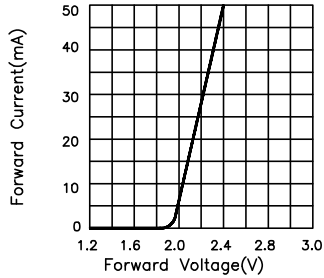
Absolute Maximum Ratings at T_A=25°C

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				

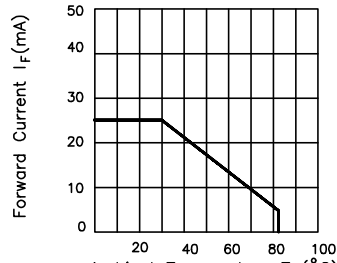
Notes:
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 4mm below package base.



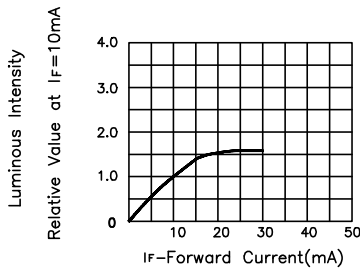
Bright Red L-1034HD



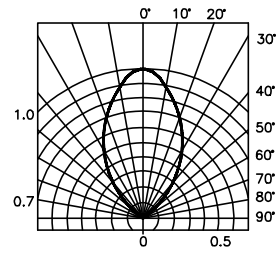
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

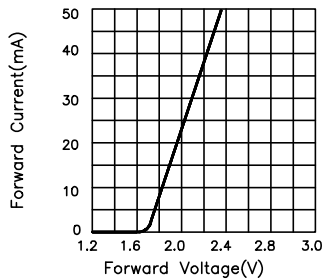


LUMINOUS INTENSITY Vs. FORWARD CURRENT

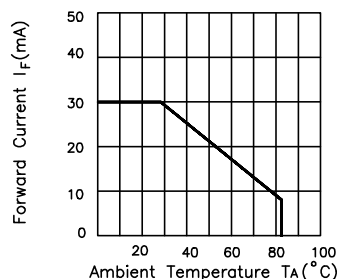


SPATIAL DISTRIBUTION

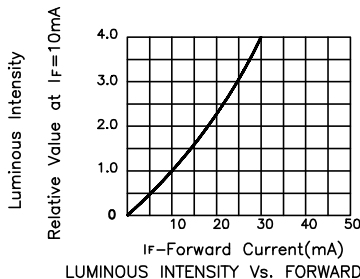
High Efficiency Red L-1034ID



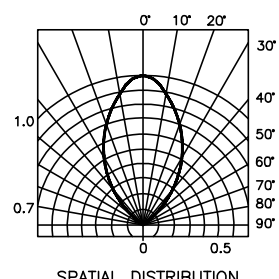
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

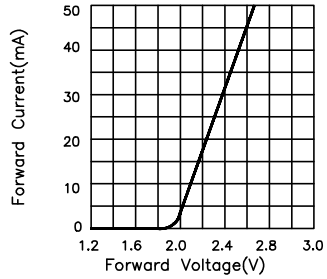


LUMINOUS INTENSITY Vs. FORWARD CURRENT

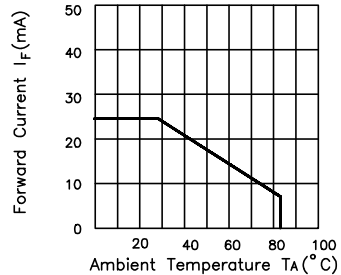


SPATIAL DISTRIBUTION

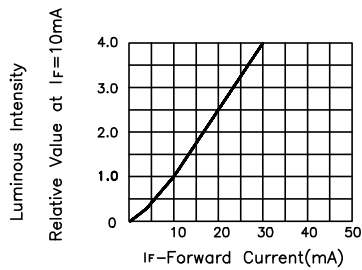
Green L-1034GD



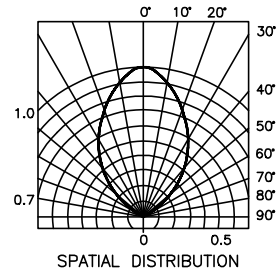
FORWARD CURRENT VS. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

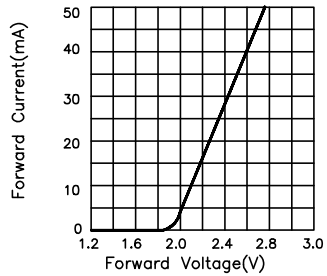


LUMINOUS INTENSITY VS. FORWARD CURRENT

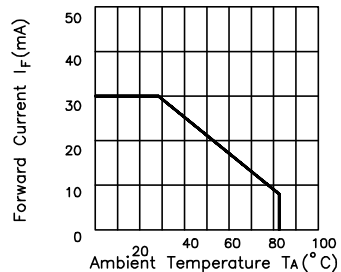


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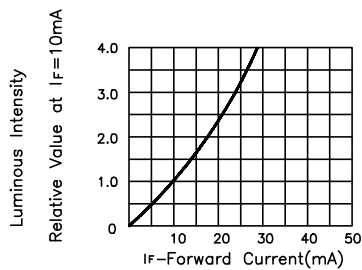
Yellow L-1034YD



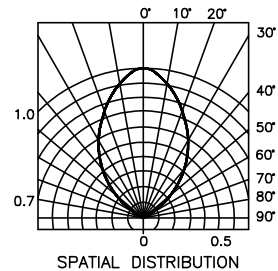
FORWARD CURRENT VS. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY VS. FORWARD CURRENT



SPATIAL DISTRIBUTION