Kingbright®

T-1 (3mm) SOLID STATE LAMPS

L-934H BRIGHT RED
L-934I HIGH EFFICIENCY RED
L-934N PURE ORANGE
L-934PG PURE GREEN
L-934E ORANGE
L-934G GREEN
L-934Y YELLOW

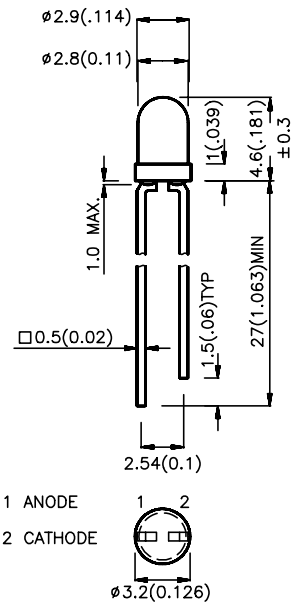
Features

- HIGH INTENSITY.
- LOW POWER CONSUMPTION.
- POPULAR T-1 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- AVAILABLE ON TAPE AND REEL.
- DIFFUSED, TRANSPARENT AND WATER CLEAR TYPE.

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 and 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 Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Pure Orange Light Emitting Diode.
The Pure Green source color devices are made with Gallium Phosphide Pure Green Light Emitting Diode.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±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.	2θ1/2
L-934HD	BRIGHT RED (GaP)	RED DIFFUSED	1.3	5	60°
L-934ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	50	60°
L-934IT		RED TRANSPARENT	20	125	50°
L-934EC		WATER CLEAR	20	125	50°
L-934ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	50	60°
L-934GD	GREEN (GaP)	GREEN DIFFUSED	8	32	60°
L-934GT		GREEN TRANSPARENT	20	80	50°
L-934GC		WATER CLEAR	20	80	50°
L-934YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	8	32	60°
L-934YT		YELLOW TRANSPARENT	10	50	50°
L-934YC		WATER CLEAR	10	50	50°
L-934ND	PURE ORANGE	ORANGE DIFFUSED	8	50	60°
L-934NT		ORANGE TRANSPARENT	20	125	50°
L-934NC		WATER CLEAR	20	125	50°
L-934PGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	8	60°
L-934PGT		GREEN TRANSPARENT	3.2	20	50°
L-934PGC		WATER CLEAR	3.2	20	50°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

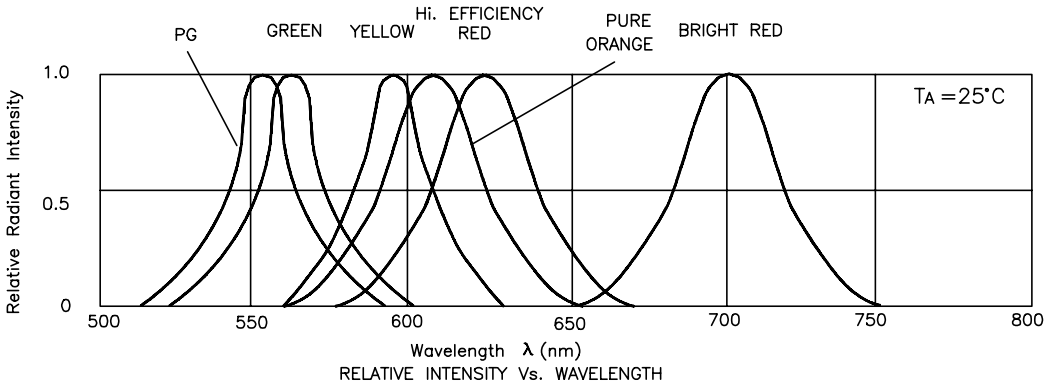
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow Pure Orange Pure Green	700 625 625 565 590 610 555		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Orange Green Yellow Pure Orange Pure Green	45 45 45 30 35 35 30		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Orange Green Yellow Pure Orange Pure Green	40 12 12 45 10 15 45		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Bright Red High Efficiency Red Orange Green Yellow Pure Orange Pure Green	2.0 2.0 2.0 2.2 2.1 2.0 2.25	2.5 2.5 2.5 2.5 2.5 2.6 2.6	V	IF=20mA
I_R	Reverse Current	All	10		uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

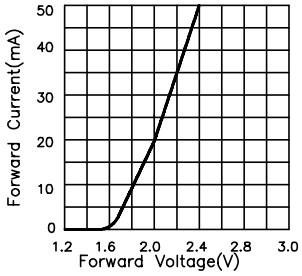
Parameter	Bright Red	High Efficiency Red	Green	Yellow	Pure Orange	Pure Green	Units
Power dissipation	120	105	105	105	105	105	mW
DC Forward Current	25	30	25	30	30	25	mA
Peak Forward Current [1]	150	150	150	150	150	150	mA
Reverse Voltage	5	5	5	5	5	5	V
Operating/Storage Temperature	-40 °C To +85 °C				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

Notes:
1.1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.

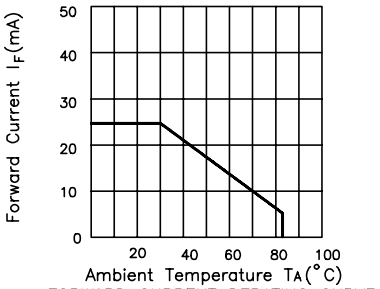


RELATIVE INTENSITY Vs. WAVELENGTH

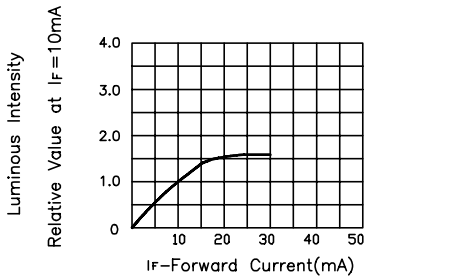
Bright Red L-934HD



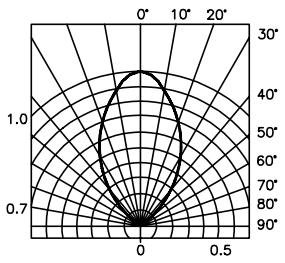
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

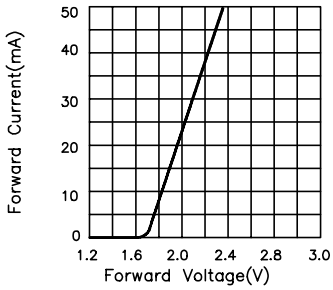


LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION

High Efficiency Red L-934ID,L-934IT,L-934EC
Orange L-934ED



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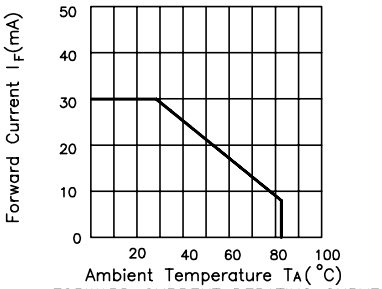

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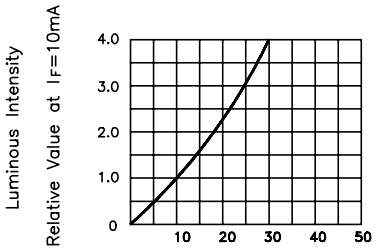

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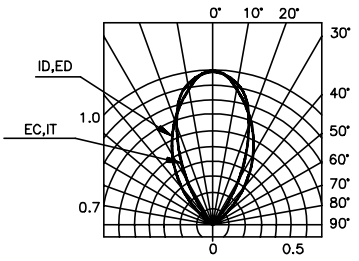
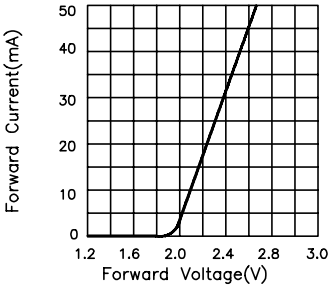


SPATIAL DISTRIBUTION

Green L-934GD,L-934GT,L-934GC



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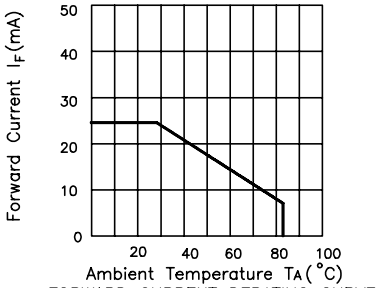

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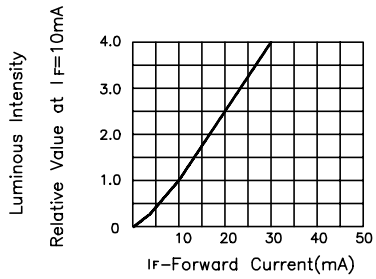
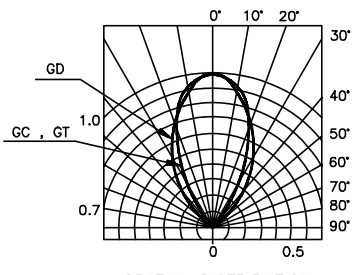
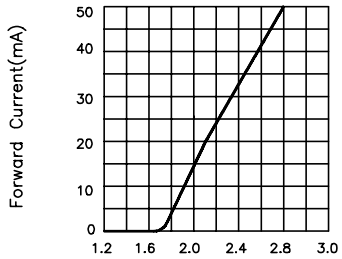


LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION

Yellow L-934YD,L-934YT,L-934YC



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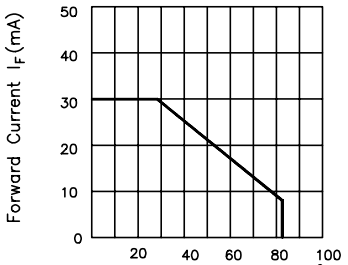

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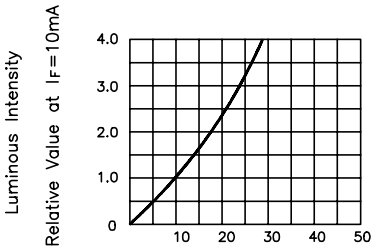
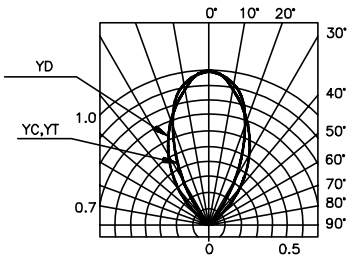
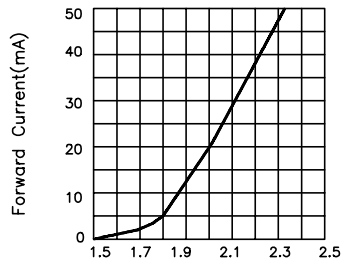


LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION

Pure Orange L-934ND,L-934NT,L-934NC



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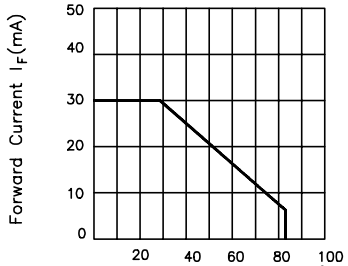

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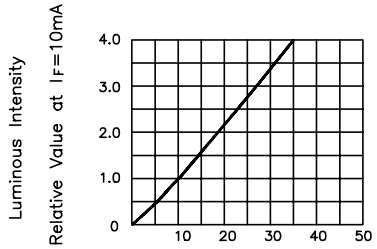

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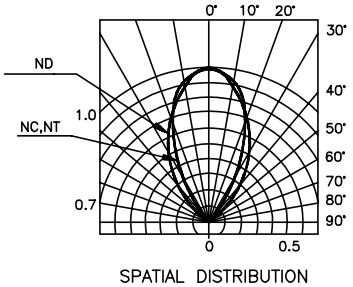
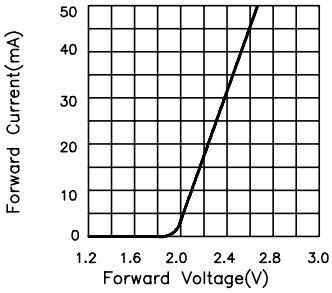


SPATIAL DISTRIBUTION

Pure Green L-934PGD,L-934PGT,L-934PGC



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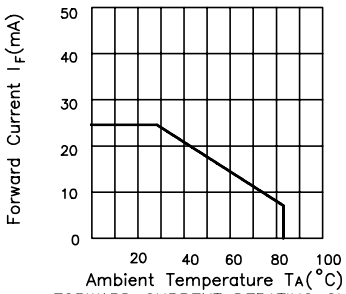

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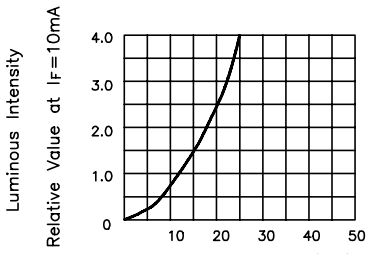

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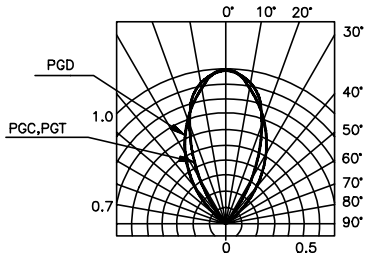

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