Kingbright®

T-1 (3mm) BI-LEVEL LED INDICATORS

L-934CA/2-90	L-934FG/2
L-934DB/2	L-934FN/2
L-934DO/2-23	L-934FO/2
L-934EB/2	L-934GO/2

Features

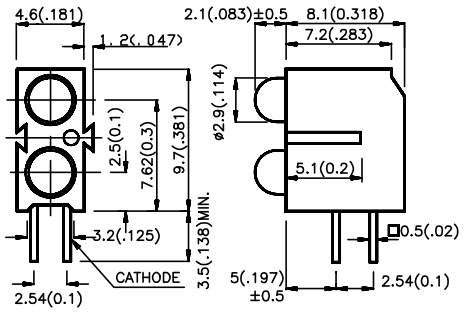
- PRE-TRIMMED LEADS FOR PC BOARD MOUNTING.
- COLORS CAN BE MIXED IN A SINGLE HOUSING.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY - LIFE MEASURED IN YEARS.

Description

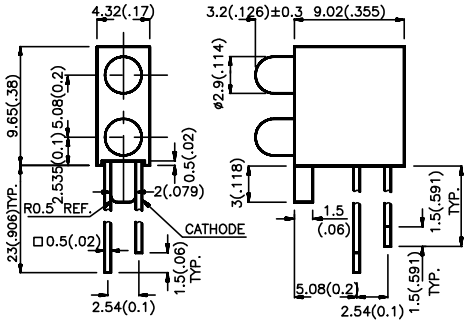
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.
The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Package Dimensions

L-934CA/2



L-934DO/2



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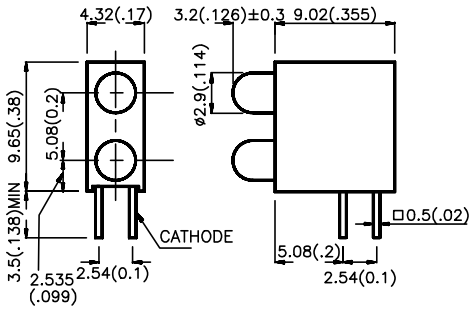
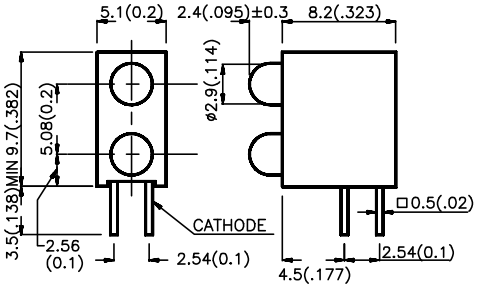


L-934DB/2



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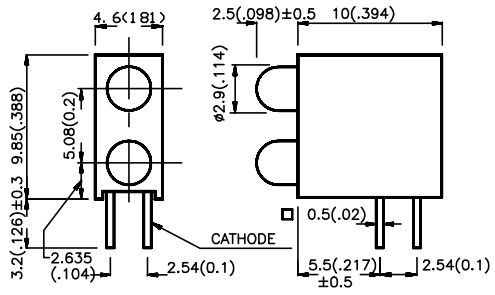
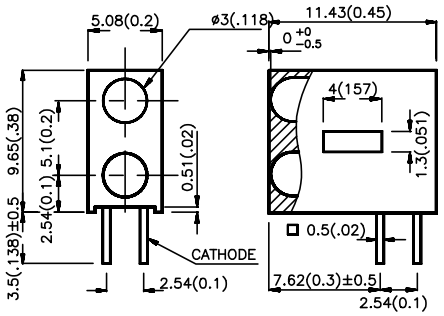
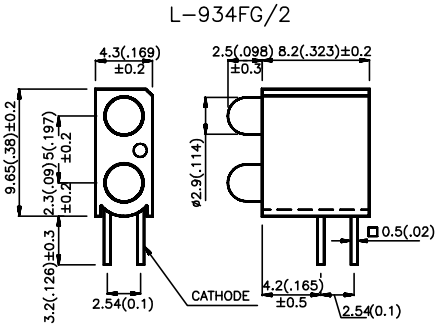


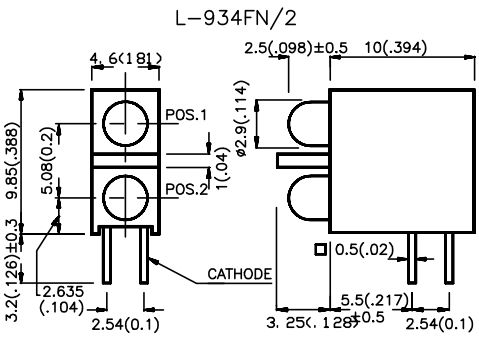
L-934GO/2



L-934FG/2



L-934FN/2



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		Viewin Angle
			Min.	Max.	**2q1/2**
L-934CA/2ID-90	HIGH EFFICIENCY RED(GaAsP/GaP)	RED DIFFUSED	8	50	60°
L-934CA/2GD-90	GREEN (GaP)	GREEN DIFFUSED	8	32	60°
L-934CA/2YD-90	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	8	32	60°
L-934CA/2SRD-90	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*300	60°

*Luminous intensity of L-934DB/2, L-934DO/2-23, L-934EB/2, L-934FG/2, L-934FN/2, L-934FO/2, L-934GO/2 series is same as the above in accordance with dice and lens type.

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. *Luminous intensity with asterisk is measured at 20 mA.

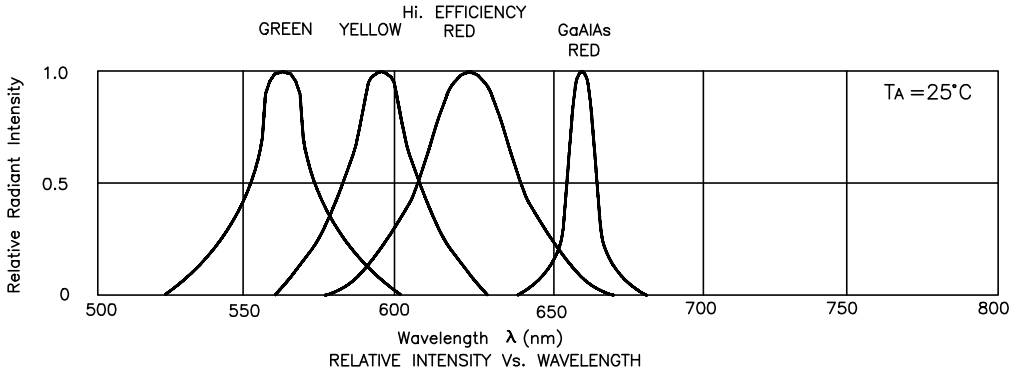
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 565 590 660		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	IF=20mA
C	Capacitance	High Efficiency Red Green Yellow Super Bright Red	12 45 10 95		pF	VF=0V;f=1MHz
V_F	Forward Voltage	High Efficiency Red Green Yellow Super Bright Red	2.0 2.2 2.1 1.85	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

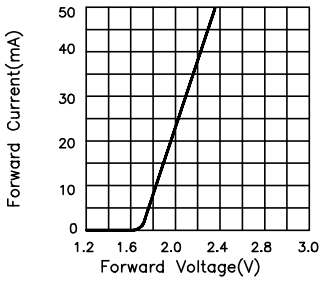
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	105	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	150	150	150	150	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40 ° C To +85 ° C				
Lead Soldering Temperature [2]	260 ° C For 5 Seconds				

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

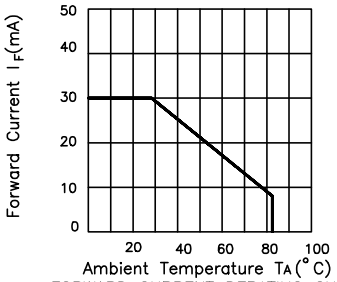


RELATIVE INTENSITY Vs. WAVELENGTH

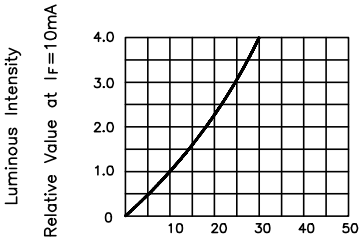
High Efficiency Red



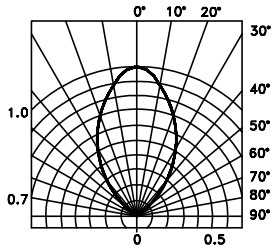
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

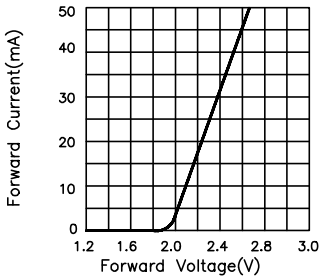


LUMINOUS INTENSITY Vs. FORWARD CURRENT

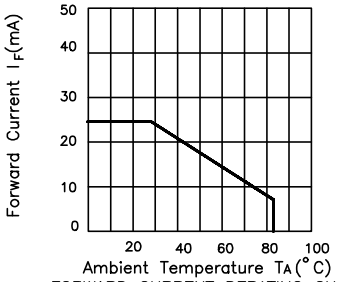


SPATIAL DISTRIBUTION

Green



FORWARD CURRENT Vs. FORWARD VOLTAGE



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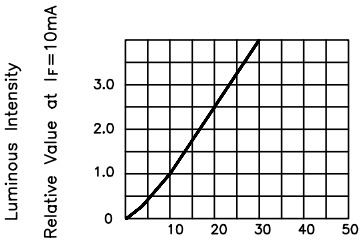
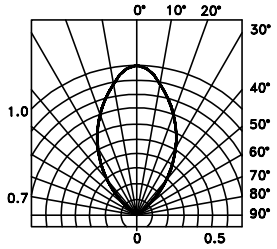
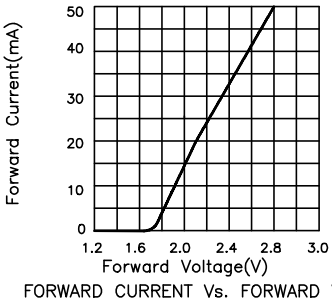


LUMINOUS INTENSITY Vs. FORWARD CURRENT

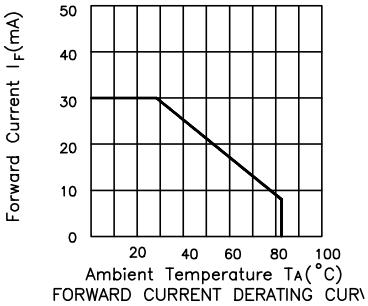


SPATIAL DISTRIBUTION

Yellow



FORWARD CURRENT Vs. FORWARD VOLTAGE



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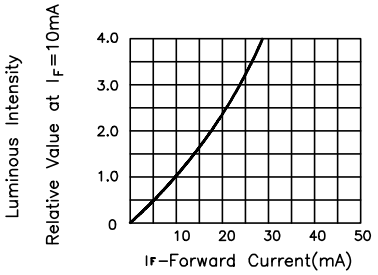
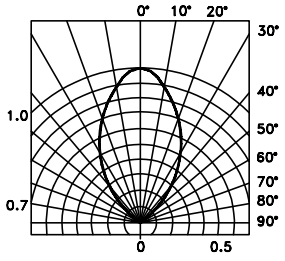
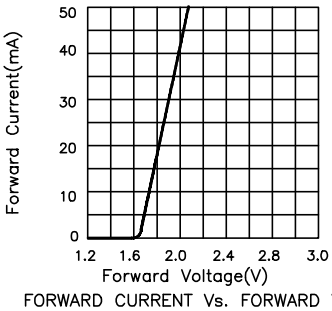


LUMINOUS INTENSITY Vs. FORWARD CURRENT

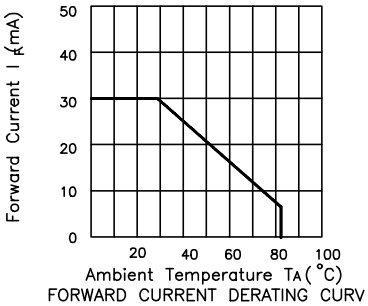


SPATIAL DISTRIBUTION

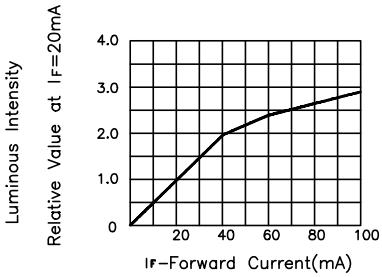
Super Bright Red



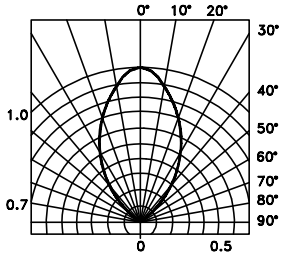
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURV



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION