

5mm LEDs

Order code	Manufacturer code	Description
55-1220	L-63ID	LOW PROFILE 5MM DIFF.RED LED
55-1225	L-63GD	LOW PROFILE 5MM DIFF.GREEN LED
55-1230	L-63YD	L/PROFILE 5MM DIFF.YELLOW LED
55-1250	L-63IT	LOW PROFILE 5MM TRANS.RED LED
55-1255	L-63GT	L/PROFILE 5MM TRANS.GREEN LED
55-1260	L-63YT	L/PROFILE 5MM TRANS.YELLOW LED

5mm 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®

LOW PROFILE T-1 3/4 (5mm) LED LAMP

L-63I HIGH EFFICIENCY RED
L-63G GREEN
L-63SR SUPER BRIGHT RED

L-63Y YELLOW

Features

- HIGH INTENSITY.
- LOW PROFILE.
- LOW POWER CONSUMPTION.
- LONG LIFE - SOLID STATE RELIABILITY.
- RELIABLE AND RUGGED.
- DIFFUSED AND TRANSPARENT TYPE.

Description

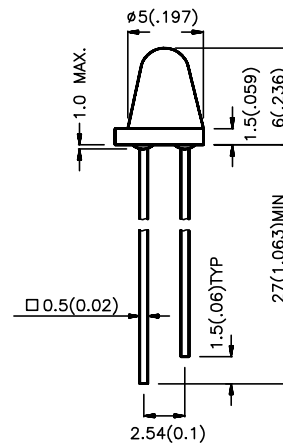
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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

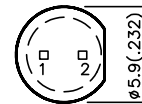
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Package Dimensions



- 1 ANODE
2 CATHODE



- 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 2 θ 1/2
			Min.	Max.	
L-63ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	12.5	50	60°
L-63IT		RED TRANSPARENT	32	12.5	30°
L-63GD	GREEN (GaP)	GREEN DIFFUSED	5	20	60°
L-63GT		GREEN TRANSPARENT	20	80	30°
L-63YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	20	60°
L-63YT		YELLOW TRANSPARENT	20	80	30°
L-63SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*500	60°
L-63SRT		RED TRANSPARENT	*200	*500	30°
L-63SRC		WATER CLEAR	*200	*700	30°

- Notes:
1. θ 1/2 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 20mA.

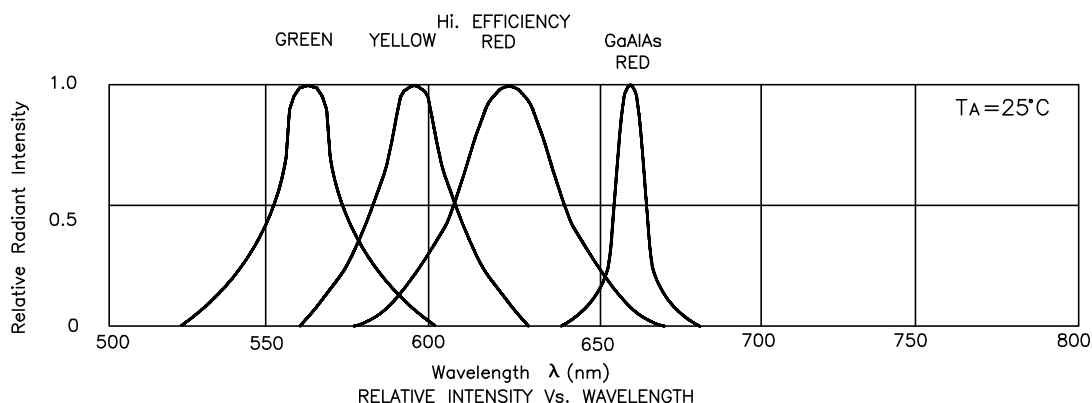
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	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

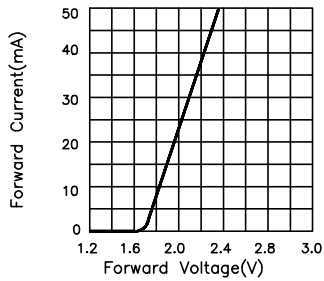
Absolute Maximum Ratings at T_A=25°C

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				

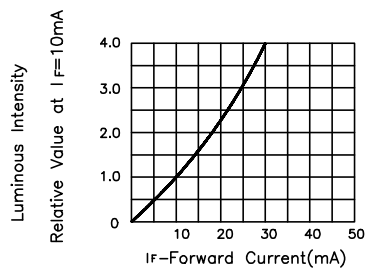
Notes:
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 4mm below package base.



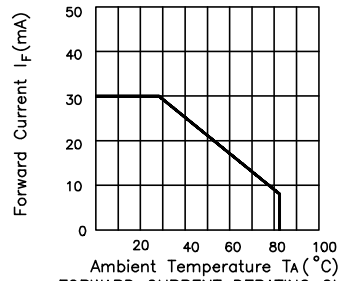
High Efficiency Red L-63ID, L-63IT



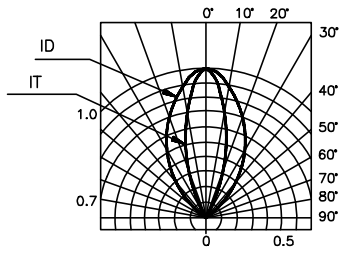
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

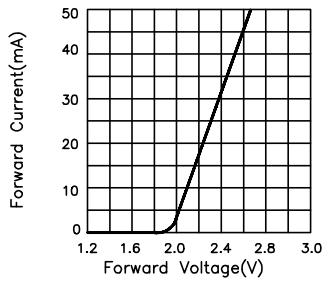


FORWARD CURRENT DERATING CURVE

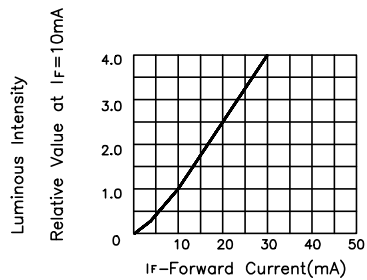


SPATIAL DISTRIBUTION

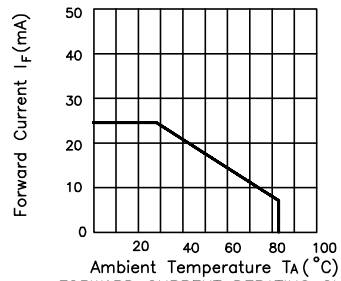
Green L-63GD, L-63GT



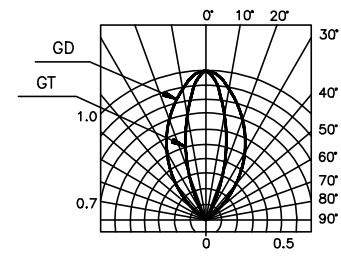
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

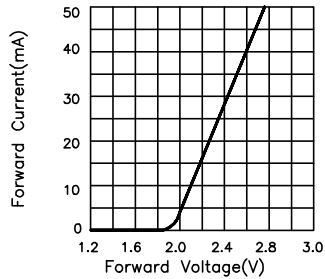


FORWARD CURRENT DERATING CURVE

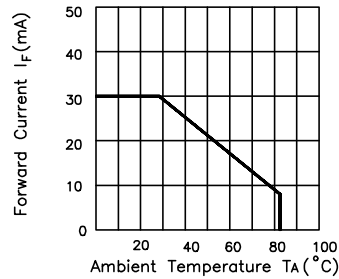


SPATIAL DISTRIBUTION

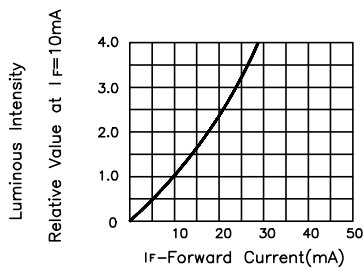
Yellow L-63YD, L-63YT



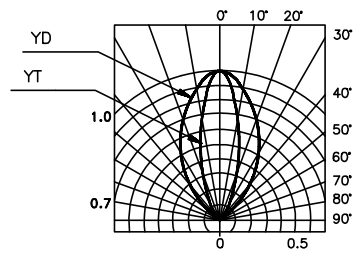
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

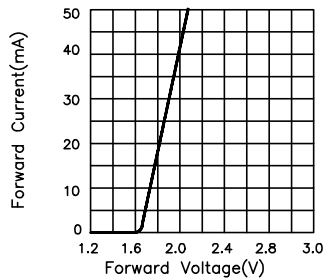


LUMINOUS INTENSITY Vs. FORWARD CURRENT

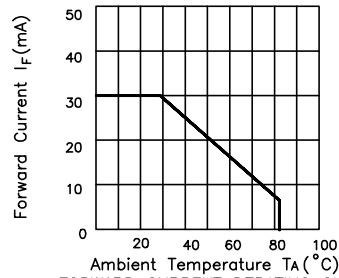


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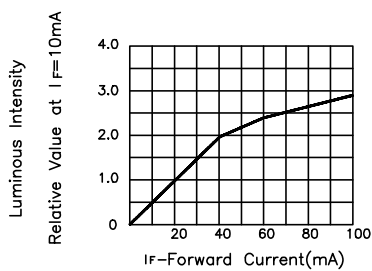
Super Bright Red L-63SRD, L-63SRT, L-63SRC



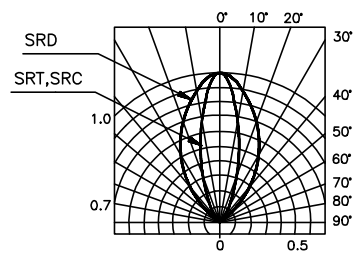
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION