Kingbright

T-1 3/4 (5mm) TWO CHIPS IN SERIES LED LAMPS

Features

- ●LONG EPOXY BODY (9.65mm).
- ●TWO CHIPS IN SERIES CONNECTION.
- ●I.C. COMPATIBLE.
- ●RELIABLE AND RUGGED.
- ●LONG LIFE - SOLID STATE RELIABILITY.

L159TEEC HIGH EFFICIENCY RED / HIGH EFFICIENCY RED

L159TYYC YELLOW / YELLOW

L159TSGSGC SUPER BRIGHT GREEN / SUPER BRIGHT GREEN

L159TSRSRC SUPER BRIGHT RED / SUPER BRIGHT RED

Package Dimensions

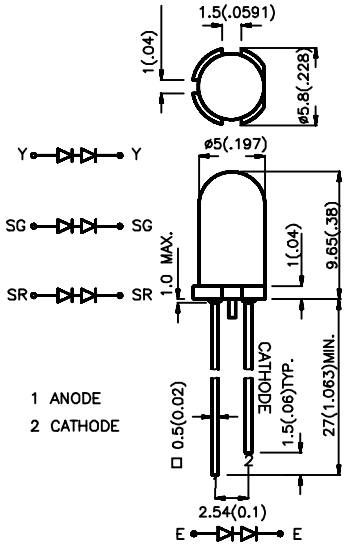
Description

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

The Super Bright Green source color devices are made with Gallium Phosphide Green 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.



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) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L159TEEC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	80	150	40°
	HIGH EFFICIENCY RED (GaAsP/GaP)		80	150	
L159TYYC	YELLOW (GaAsP/GaP)	WATER CLEAR	60	100	40°
	YELLOW (GaAsP/GaP)		60	100	
L159TSGSGC	SUPRT BRIGHT GREEN (GaP)	WATER CLEAR	80	150	40°
	SUPER BRIGHT GREEN (GaP)		80	150	
L-59TSRSRC	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	1000	40°
	SUPER BRIGHT RED (GaAlAs)		500	1000	

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

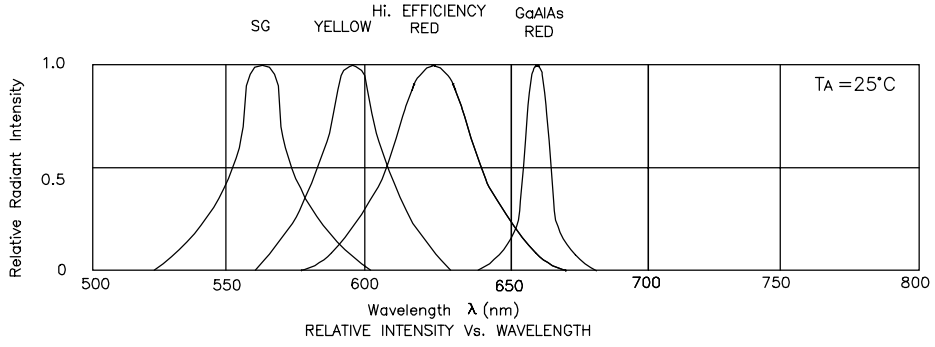
Electrical / Optical Characteristics at T_A=25°C

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

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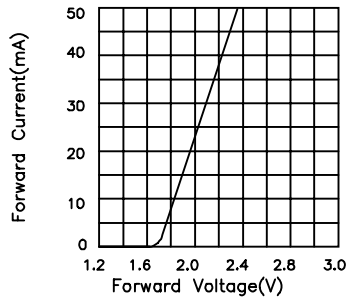
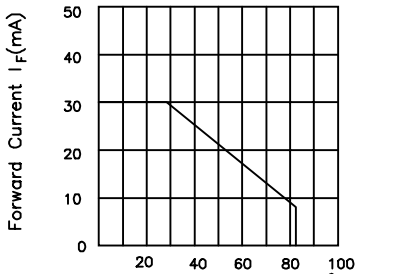
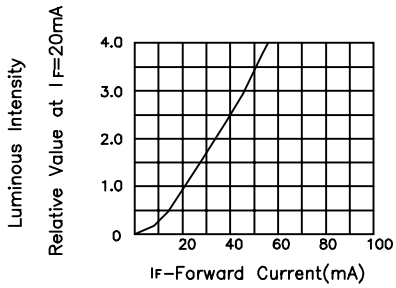
High Efficiency Red / High Efficiency Red L159TEEC

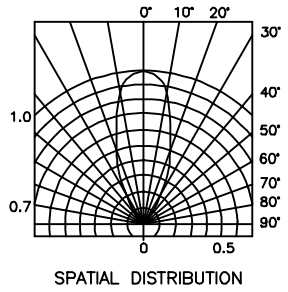


FORWARD CURRENT Vs. FORWARD VOLTAGE



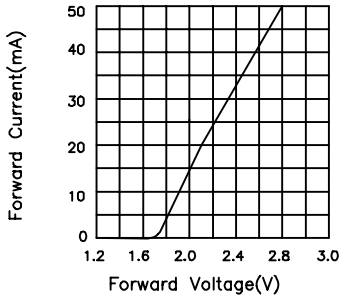
FORWARD CURRENT DERATING CURVE





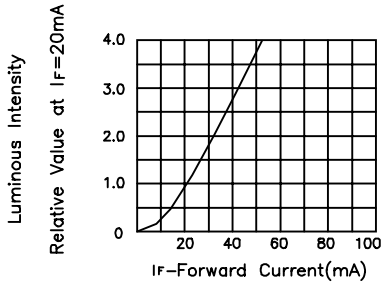
SPATIAL DISTRIBUTION

Yellow / Yellow L159TYYC

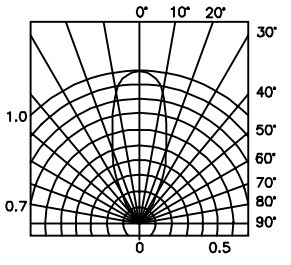


FORWARD CURRENT Vs. FORWARD VOLTAGE

FORWARD CURRENT DERATING CURVE

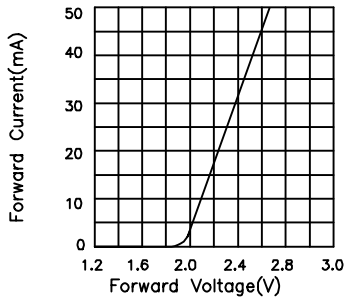


LUMINOUS INTENSITY Vs. FORWARD CURRENT

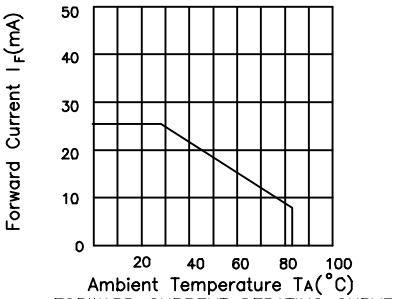


SPATIAL DISTRIBUTION

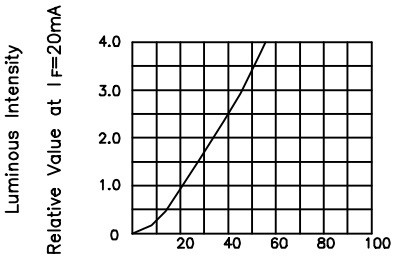
Super Bright Green / Super Bright Green L159TSGSGC



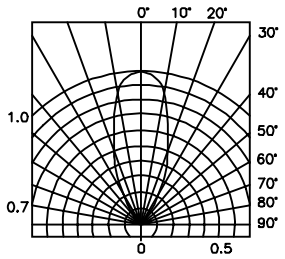
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

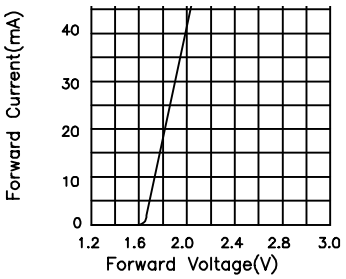


LUMINOUS INTENSITY Vs. FORWARD CURRENT

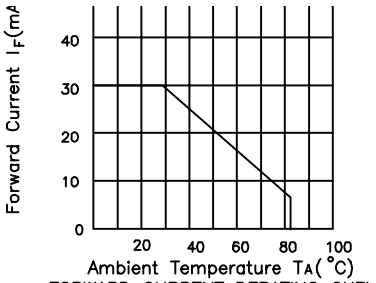


SPATIAL DISTRIBUTION

Super Bright Red / Super Bright Red L159TSRSRC



FORWARD CURRENT Vs. FORWARD VOLTAGE



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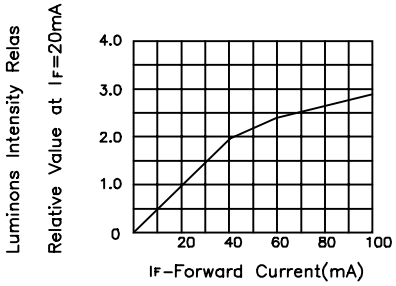
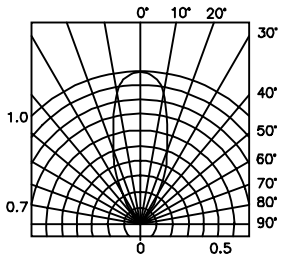


LUMINOUS INTENSITY Vs. FORWARD CURRENT



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