

Features

- OVAL SHAPE. WIDER VIEWING ANGLE IN HORIZONTAL DIRECTION.
- TWO CHIPS IN SERIES CONNECTION.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.

- L161TEEC HIGH EFFICIENCY RED / HIGH EFFICIENCY RED
- L161TYYC YELLOW / YELLOW
- L161TSGSGC SUPER BRIGHT GREEN / SUPER BRIGHT GREEN
- L161TSR SRC SUPER BRIGHT RED / SUPER BRIGHT RED

Description

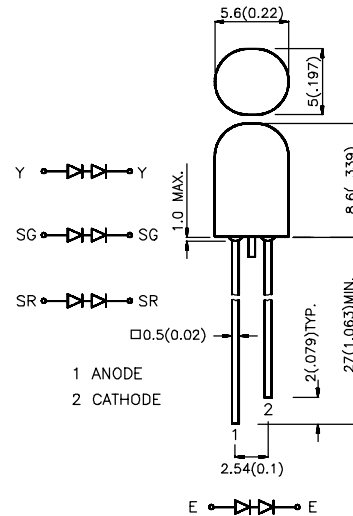
The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.

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) @ 20 mA		Viewing Angle
			Min.	Typ.	
L161TEEC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	100	200	40° (H) 25° (V)
	HIGH EFFICIENCY RED (GaAsP/GaP)		100	200	
L161TYYC	YELLOW (GaAsP/GaP)	WATER CLEAR	100	150	40° (H) 25° (V)
	YELLOW (GaAsP/GaP)		100	150	
L161TSGSGC	SUPRT BRIGHT GREEN (GaP)	WATER CLEAR	100	200	40° (H) 25° (V)
	SUPER BRIGHT GREEN (GaP)		100	200	
L161TSR SRC	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	1300	40° (H) 25° (V)
	SUPER BRIGHT RED (GaAlAs)		500	1300	

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

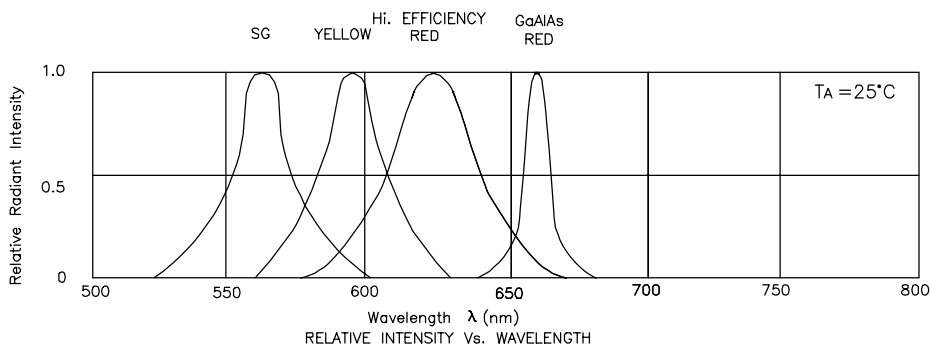
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Green Yellow Super Bright Red	625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Yellow Super Bright Red	45 30 35 20		nm	IF=20mA
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

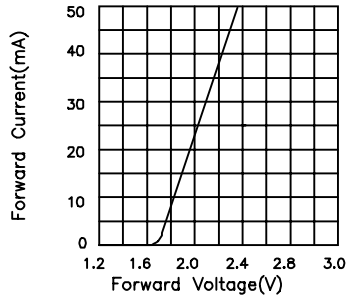
Parameter	High Efficiency Red	Super Bright Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	105	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	150	150	150	150	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Soldering Temperature [2]	260°C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

Notes:

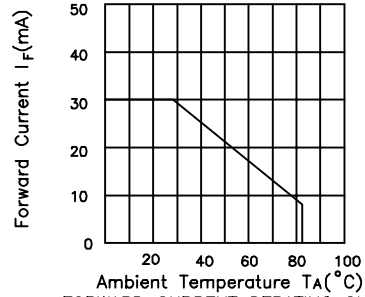
- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



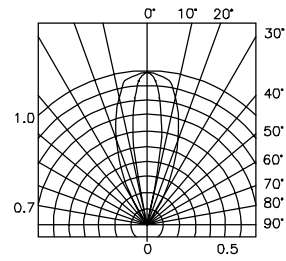
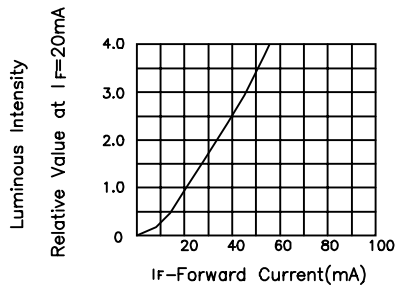
High Efficiency Red / High Efficiency Red L161TEEC



FORWARD CURRENT Vs. FORWARD VOLTAGE

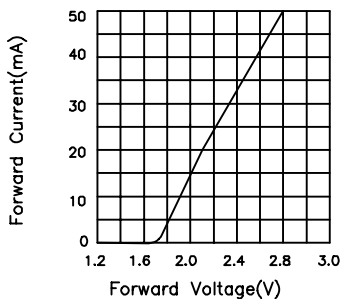


FORWARD CURRENT DERATING CURVE

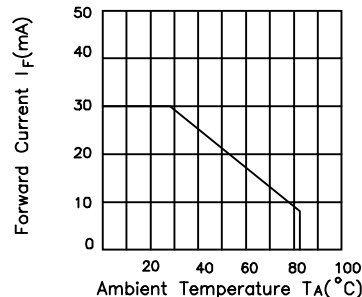


SPATIAL DISTRIBUTION

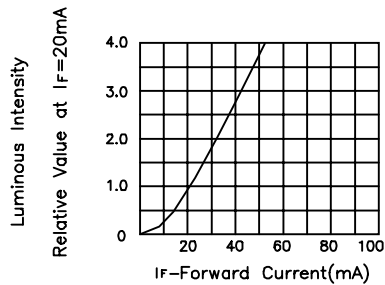
Yellow / Yellow L161TYYC



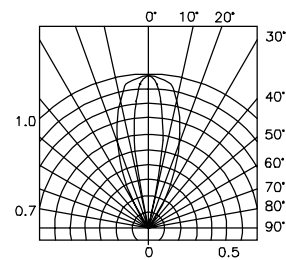
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

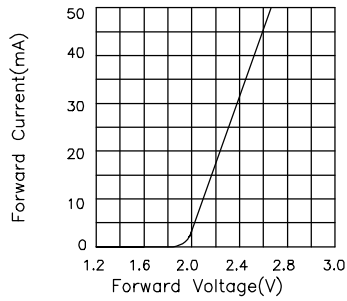


LUMINOUS INTENSITY Vs. FORWARD CURRENT

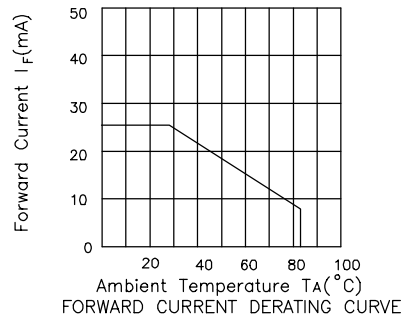


SPATIAL DISTRIBUTION

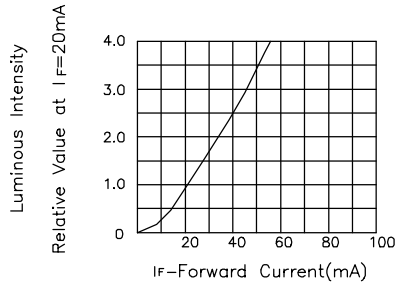
Super Bright Green / Super Bright Green L161TSGSGC



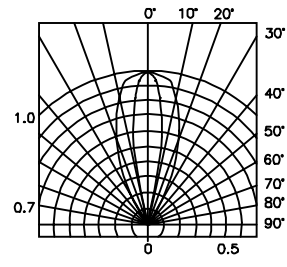
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

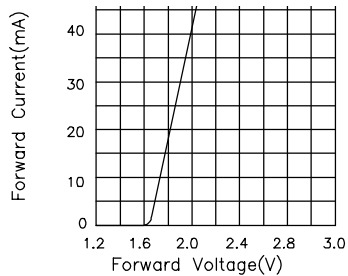


LUMINOUS INTENSITY Vs. FORWARD CURRENT

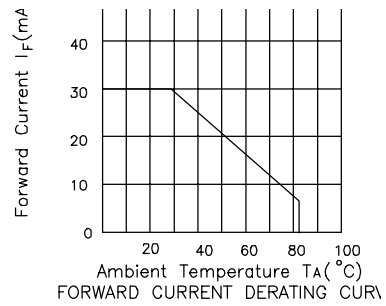


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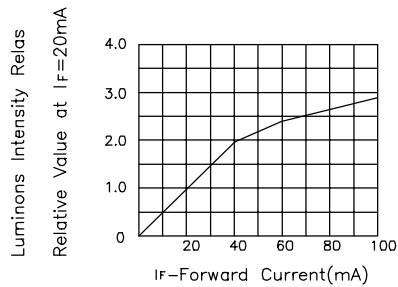
Super Bright Red / Super Bright Red L161TSR SRC



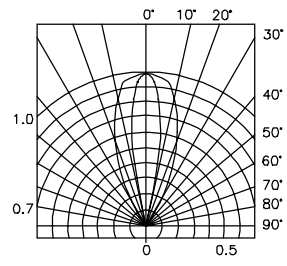
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURV



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION