



## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA *20mA		Viewing Angle
			Min.	Typ.	θ1/2
L704HD	BRIGHT RED (GaP)	RED DIFFUSED	0.5	1	110°
L704ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	3	5	110°
L704ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	3	5	110°
L704GD	GREEN (GaP)	GREEN DIFFUSED	1	5	110°
L704YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	1	5	110°
L704SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*40	*70	110°

Notes:

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

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

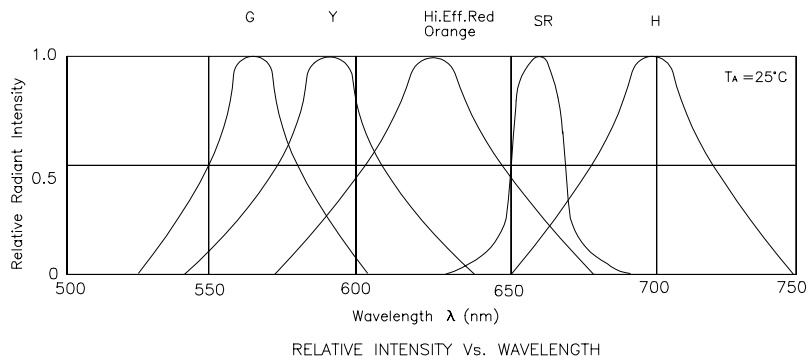
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red	700 627 627 565 590 660		nm	IF=20mA
λ <sub>D</sub>	Dominate Wavelength	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red	660 625 625 568 588 640		nm	IF=20mA
Δλ <sub>1/2</sub>	Spectral Line Halfwidth	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red	45 45 45 30 35 20		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red	40 15 15 15 20 45		pF	VF=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red	2.25 2.0 2.0 2.2 2.1 1.85	2.5 2.5 2.5 2.5 2.5 2.5	V	IF=20mA
I <sub>r</sub>	Reverse Current	All		10	uA	VR = 5V

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

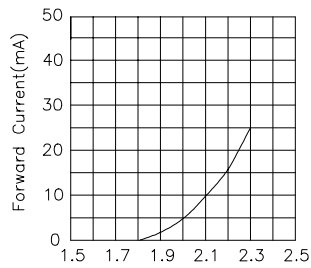
Parameter	Bright Red	High Efficiency Red	Orange	Green	Yellow	Super Bright Red	Units
Power dissipation	120	105	105	105	105	100	mW
DC Forward Current	25	30	30	25	30	30	mA
Peak Forward Current [1]	120	160	160	140	140	155	mA
Reverse Voltage	5	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C						
Lead Solder Temperature [2]	260°C For 5 Seconds						

**Notes:**

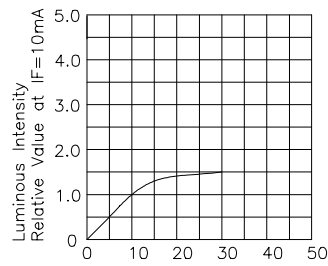
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



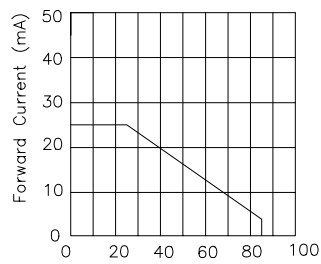
## Bright Red L704HD



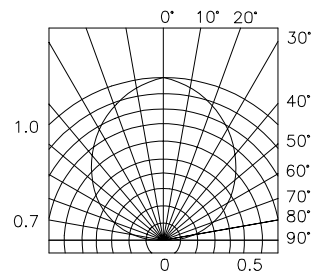
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

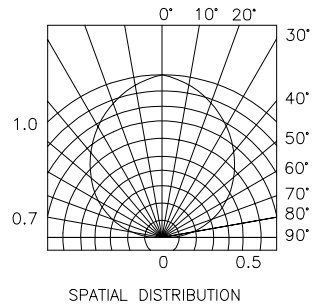
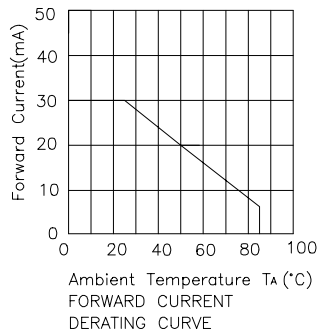
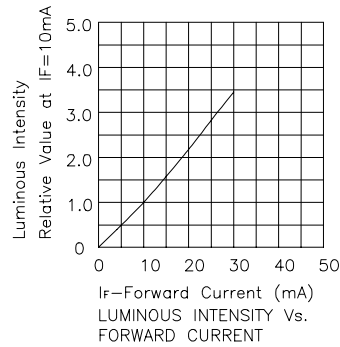
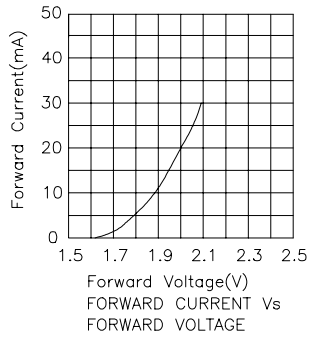


FORWARD CURRENT DERATING CURVE

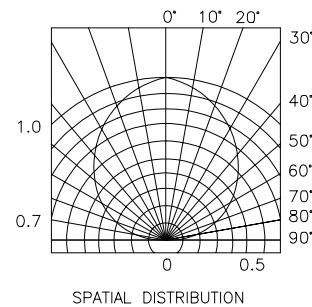
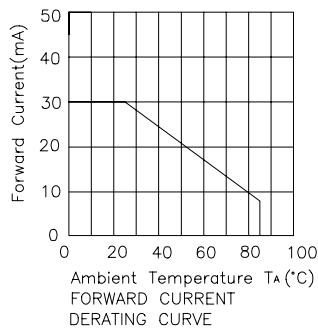
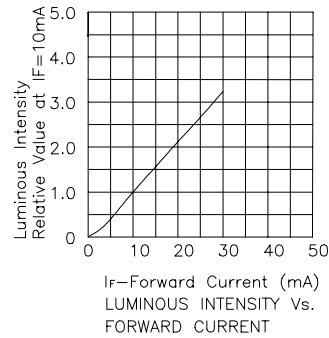
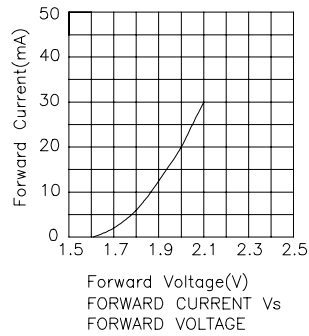


SPATIAL DISTRIBUTION

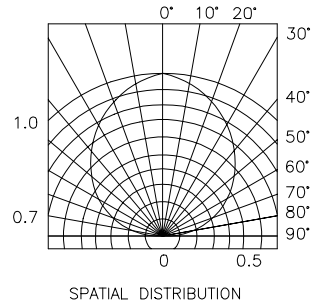
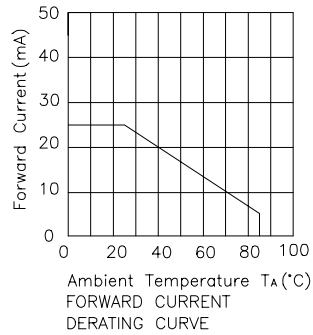
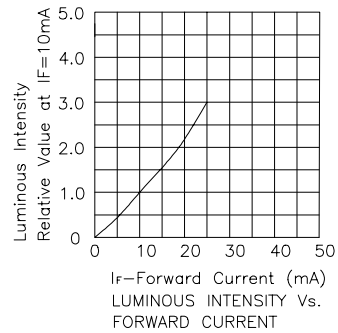
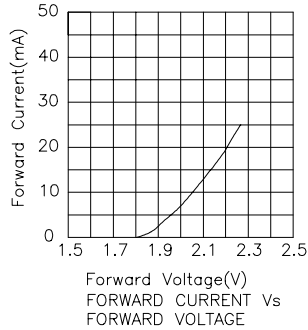
## High Efficiency Red L704ID



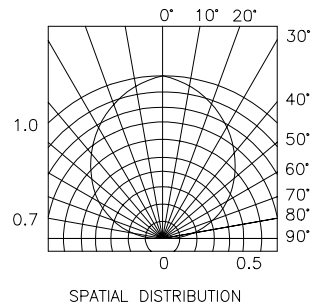
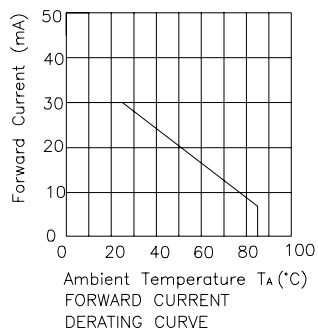
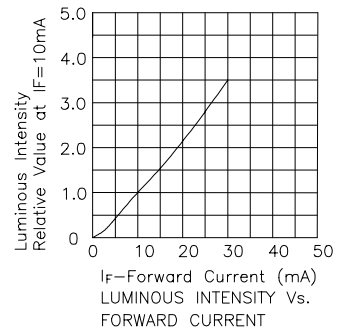
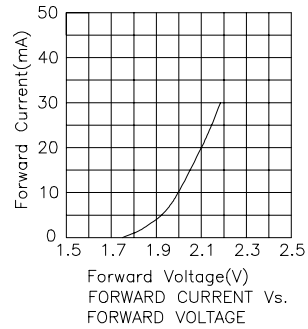
## Orange L704ED



## Green L704GD



## Yellow L704YD



## Super Bright Red L704SRD

