

Features

- LOW POWER CONSUMPTION.
- I.C. COMPATIBLE.
- ROUNDED END RECTANGULAR SHAPE.
- LONG LIFE-SOLID STATE RELIABILITY.

L1773HD BRIGHT RED

L1773GD GREEN

L1773ID HIGH EFFICIENCY RED

L1773YD YELLOW

L1773ND PURE ORANGE

L1773ED ORANGE

Package Dimensions

Description

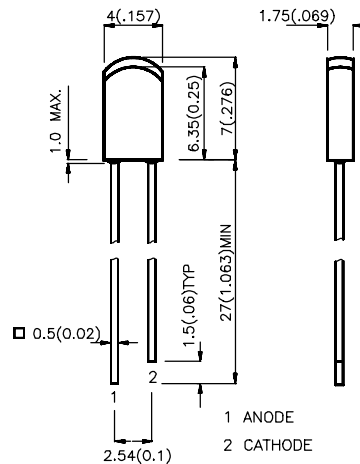
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

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

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



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
			Min.	Typ.	
L1773HD	BRIGHT RED (GaP)	RED DIFFUSED	0.8	2	100°
L1773ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	5	10	100°
L1773ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	5	10	100°
L1773GD	GREEN (GaP)	GREEN DIFFUSED	5	10	100°
L1773YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	3	8	100°
L1773ND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	5	8	100°

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

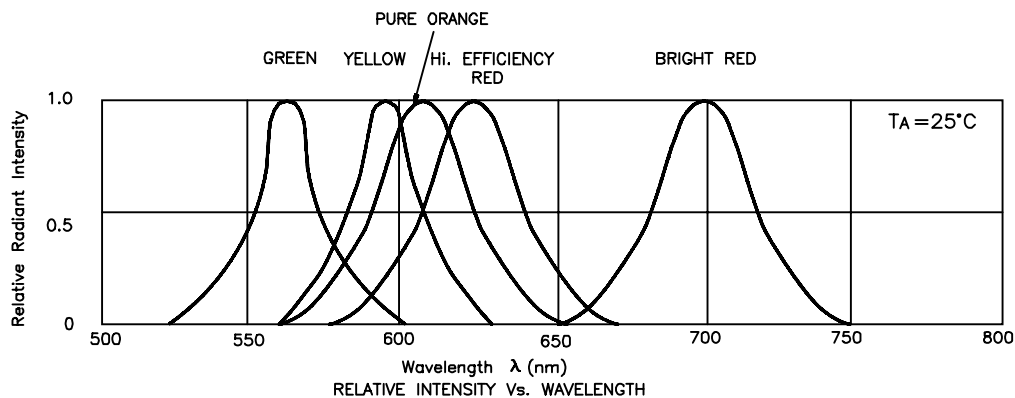
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow Pure Orange	700 625 625 565 590 610		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Orange Green Yellow Pure Orange	45 45 45 30 35 35		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Orange Green Yellow Pure Orange	40 12 12 45 10 15		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Bright Red High Efficiency Red Orange Green Yellow Pure Orange	2.0 2.0 2.0 2.2 2.1 2.0	2.5 2.5 2.5 2.5 2.5 2.6	V	IF=20mA
I _R	Reverse Current	All	10		uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

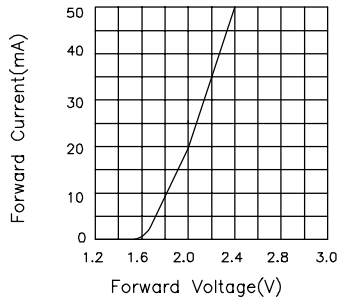
Parameter	Bright Red	High Efficiency Red	Orange	Green	Yellow	Pure Orange	Units
Power dissipation	120	105	105	105	105	105	mW
DC Forward Current	25	30	30	25	30	30	mA
Peak Forward Current [1]	150	150	150	150	150	150	mA
Reverse Voltage	5	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C						
Lead Soldering Temperature [2]	260°C For 5 Seconds						

Notes:

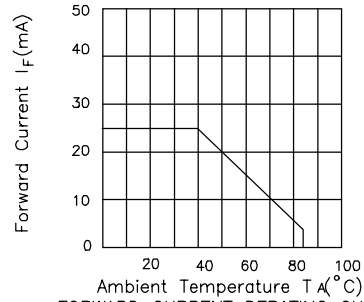
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



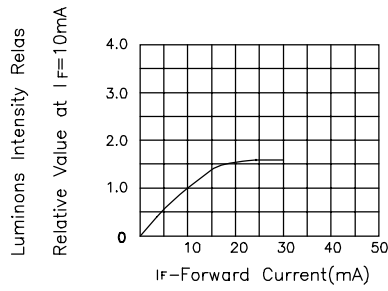
Bright Red L1773HD



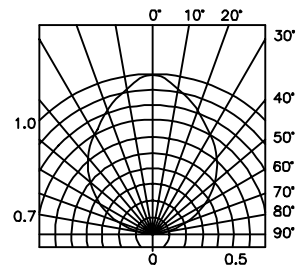
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

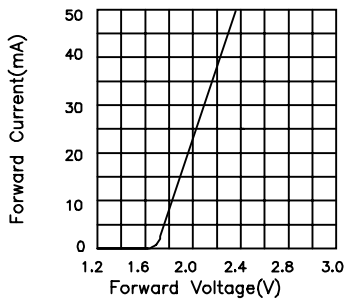


LUMINOUS INTENSITY Vs. FORWARD CURRENT

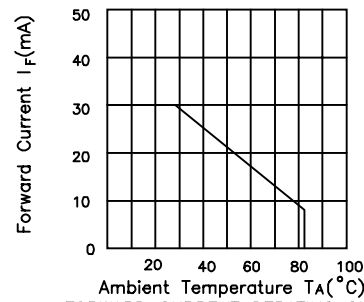


SPATIAL DISTRIBUTION

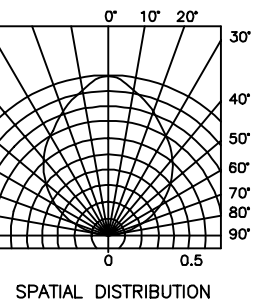
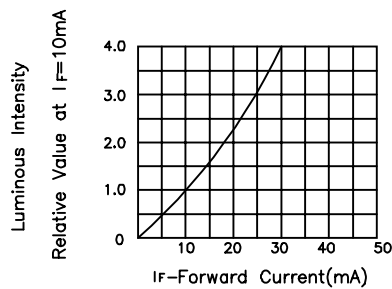
High Efficiency Red L1773ID Orange L1773ED



FORWARD CURRENT Vs. FORWARD VOLTAGE

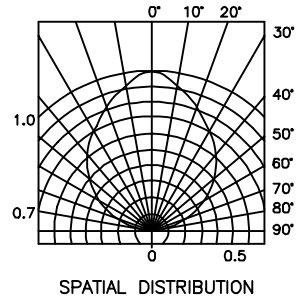
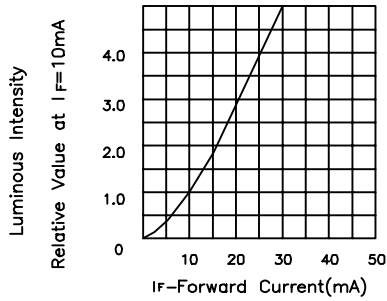
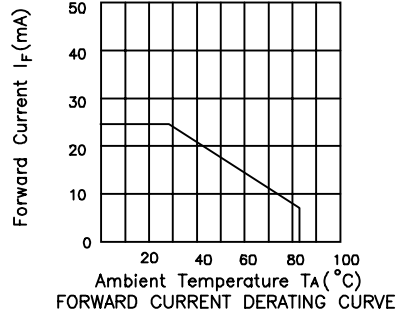
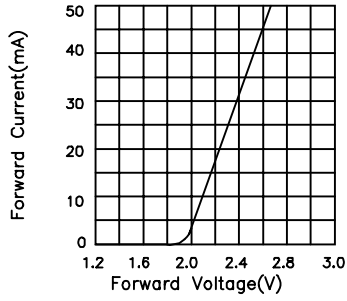


FORWARD CURRENT DERATING CURVE



SPATIAL DISTRIBUTION

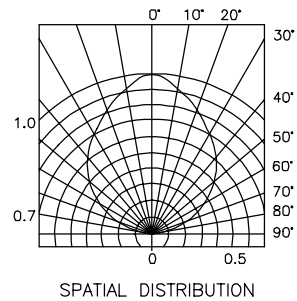
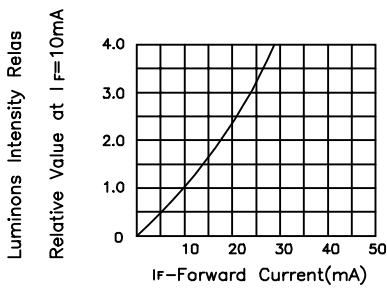
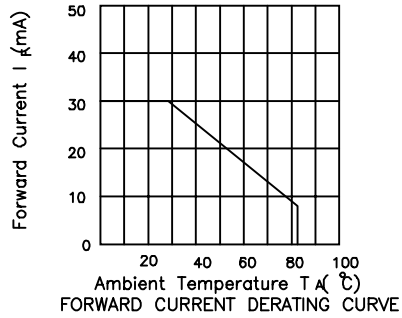
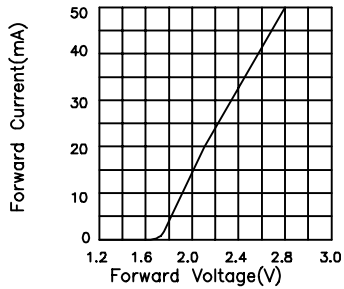
Green L1773GD



LUMINOUS INTENSITY Vs. FORWARD CURRENT

SPATIAL DISTRIBUTION

Yellow L1773YD



LUMINOUS INTENSITY Vs. FORWARD CURRENT

SPATIAL DISTRIBUTION

Pure Orange L1773ND

