

L-383HDT BRIGHT RED	L-383GDT GREEN
L-383IDT HIGH EFFICIENCY RED	L-383EDT ORANGE
L-383SRx SUPER BRIGHT RED	L-383YDT YELLOW
L-383SGWT SUPER BRIGHT GREEN	

### Features

- LOW POWER CONSUMPTION.
- ULTRA BRIGHTNESS IS AVAILABLE.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- LONG LIFE - SOLID STATE RELIABILITY.

### Description

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

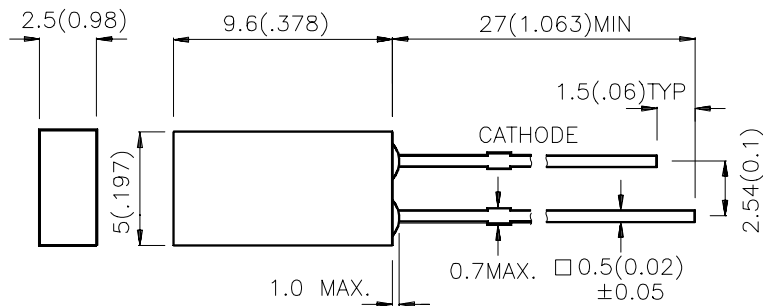
The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green and 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 subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA *20mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-383HDT	BRIGHT RED (GaP)	RED DIFFUSED	0.5	1	110°
L-383IDT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	3	5	110°
L-383EDT	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	3	5	110°
L-383GDT	GREEN (GaP)	GREEN DIFFUSED	1	4	110°
L-383YDT	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	1	4	110°
L-383SRDT	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*40	*70	110°
L-383SRWT		WHITE DIFFUSED	*40	*70	110°
L-383SGWT	SUPER BRIGHT GREEN (GaP)	WHITE DIFFUSED	*8	*15	110°

**Notes:**

1. θ1/2 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<sub>A</sub>=25°C

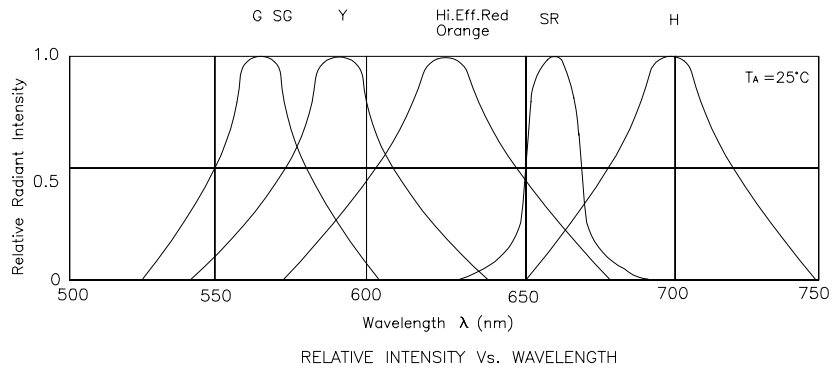
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red Super Bright Green	700 627 627 565 590 660 565		nm	IF=20mA
λ <sub>D</sub>	Dominate Wavelength	Bright Red High Efficiency Red Orange Green Yellow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

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

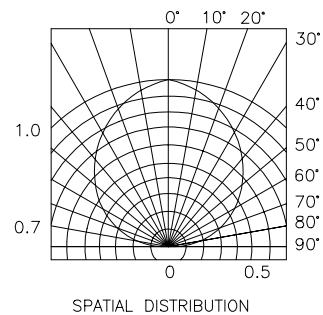
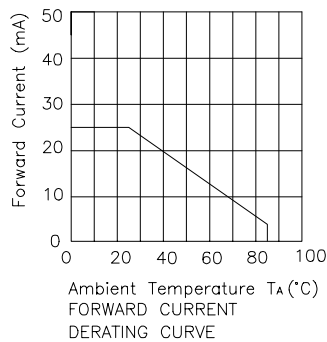
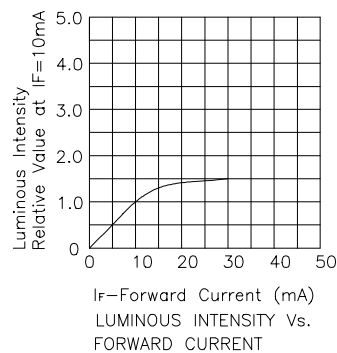
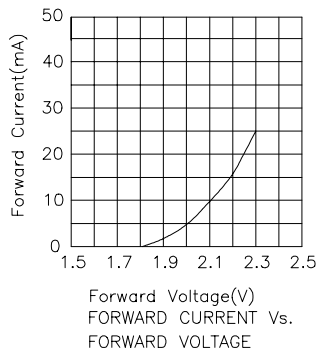
Parameter	Bright Red	High Efficiency Red	Orange	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	120	105	105	105	105	100	105	mW
DC Forward Current	25	30	30	25	30	30	25	mA
Peak Forward Current [1]	120	160	160	140	140	155	140	mA
Reverse Voltage	5	5	5	5	5	5	5	V
Operating/Storage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

**Notes:**

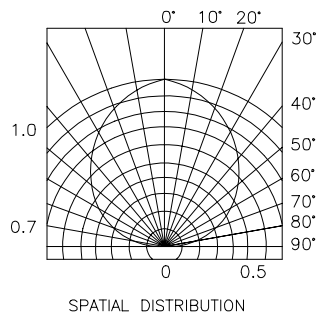
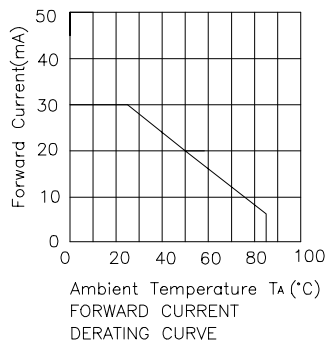
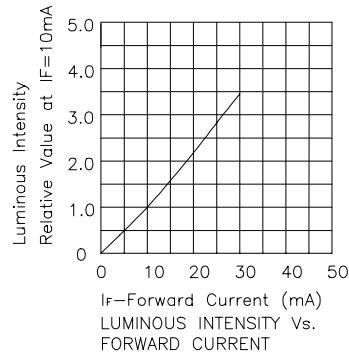
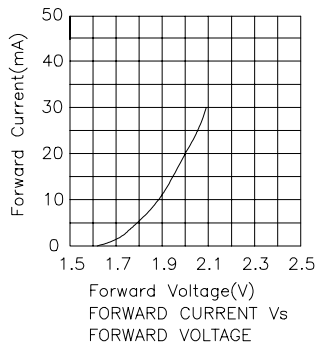
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



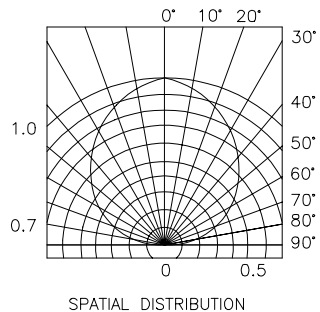
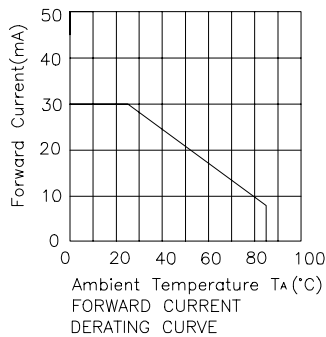
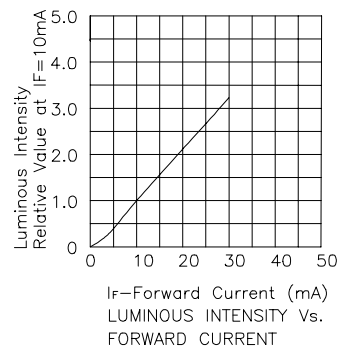
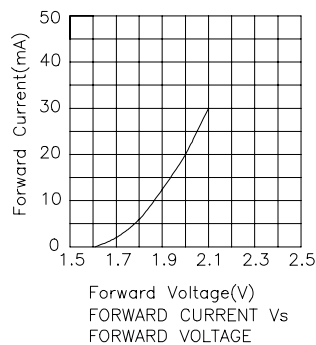
### Bright Red L-383HDT



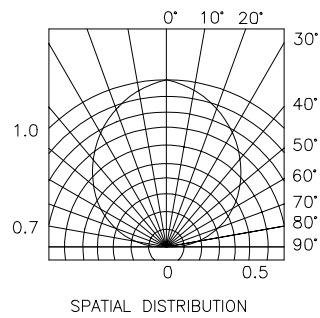
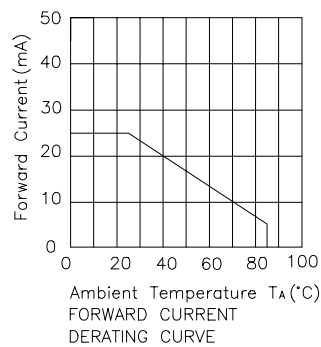
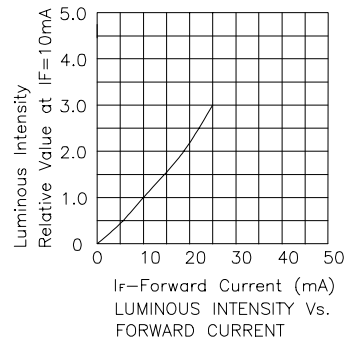
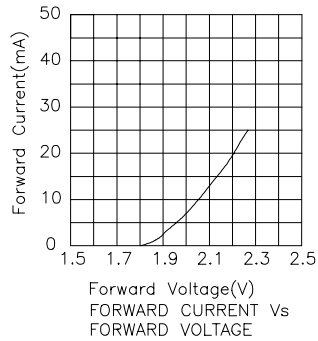
## High Efficiency Red L-383IDT



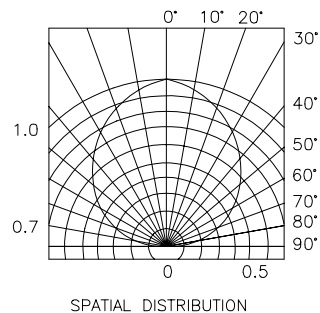
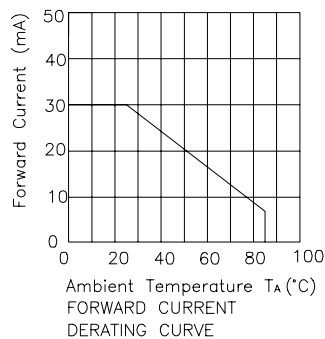
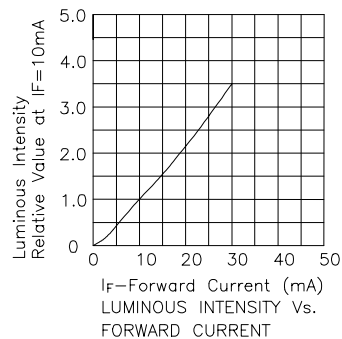
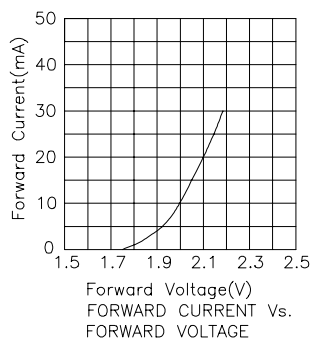
## Orange L-383EDT



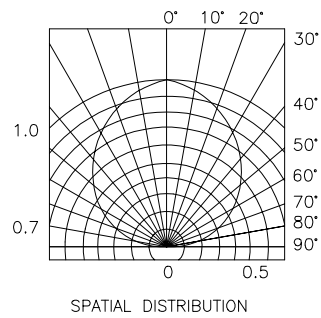
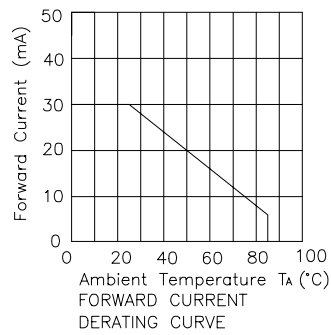
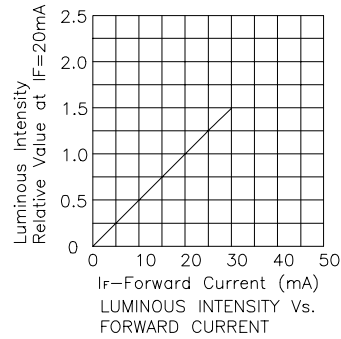
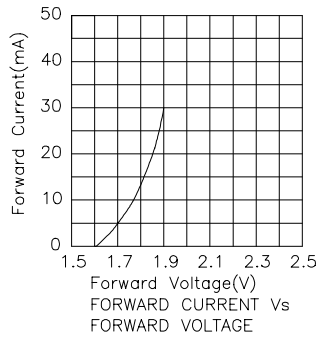
## Green L-383GDT



## Yellow L-383YDT



## Super Bright Red L-383SRDT,L-383SRWT



## Super Bright Green L-383SGWT

