

L-483HDT BRIGHT RED L-483GDT GREEN
 L-483IDT HIGH EFFICIENCY RED L-483EDT ORANGE
 L-483YDT YELLOW
 L-483SRSGW SUPER BRIGHT RED/SUPER BRIGHT GREEN

Features

- CYLINDRICAL TYPE, TOP DIFFUSED.
- LOW POWER CONSUMPTION.
- SUPER BRIGHT RED AND SUPER GREEN BI-COLOR VERSION IS AVAILABLE.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.

Description

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

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

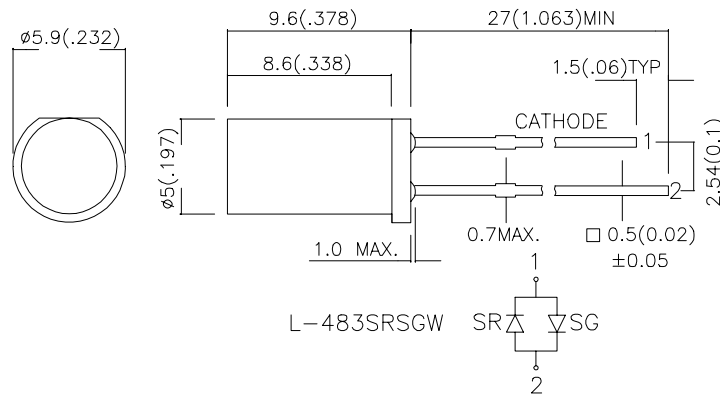
The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The 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.

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

Package Dimensions



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 subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA*20mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-483HDT	BRIGHT RED (GaP)	RED DIFFUSED	0.5	1	100°
L-483IDT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	2	5	100°
L-483EDT	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	3	7	100°
L-483GDT	GREEN (GaP)	GREEN DIFFUSED	1	4	100°
L-483YDT	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	1	4	100°
L-483SRSGW	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	*20	*50	80°
	SUPER BRIGHT GREEN (GaP)		*5	*10	

Notes:

1. $\theta 1/2$ 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_A=25°C

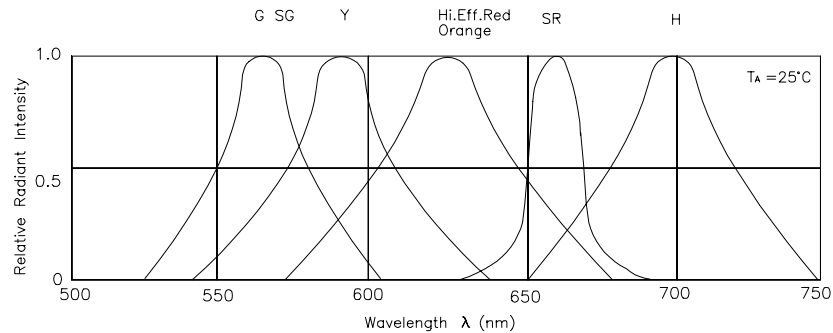
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red Super Bright Green	700 627 627 565 590 660 565		nm	IF=20mA
λ_D	Dominant Wavelength	Bright Red High Efficiency Red Orange Green Yellow Super Bright Red Super Bright Green	660 625 625 568 588 640 568		nm	IF=20mA
$\Delta\lambda_{1/2}$	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	V _F =0V;f=1MHz
V _F	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 _R	Reverse Current	All		10	uA	V _R = 5V

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

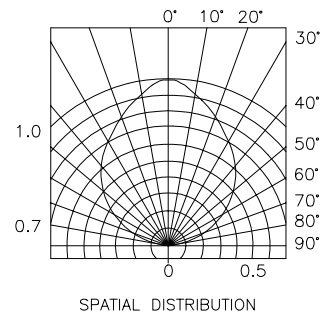
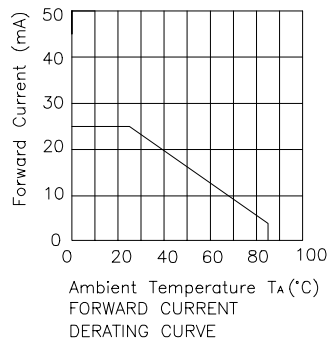
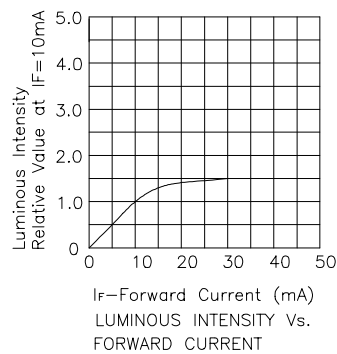
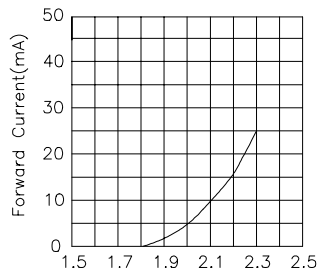
Parameter	Bright Red	High Efficiency Red	Orange	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	120	105	105	105	105	100	105	mW
DC Forward Current	25	30	30	25	30	30	25	mA
Peak Forward Current [1]	120	160	160	140	140	155	140	mA
Reverse Voltage	5	5	5	5	5	5	5	V
Operating/Storage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

Notes:

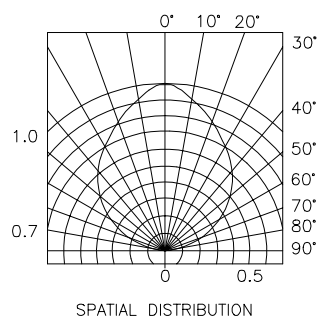
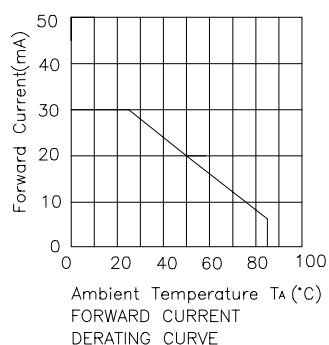
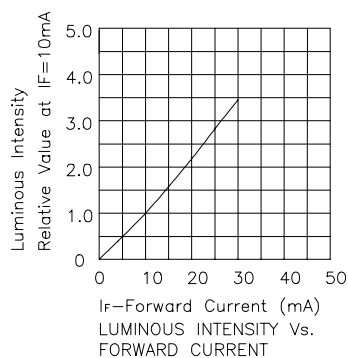
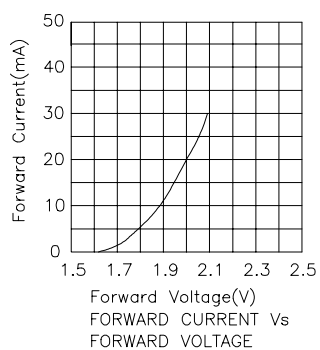
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



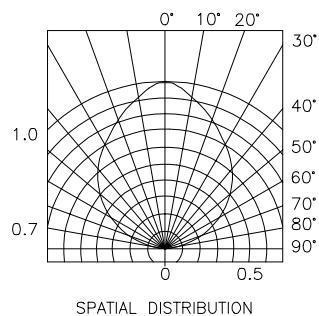
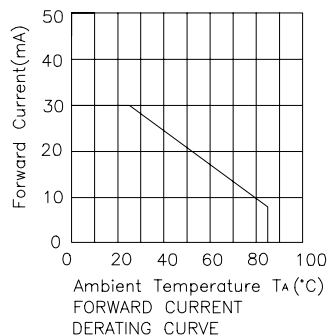
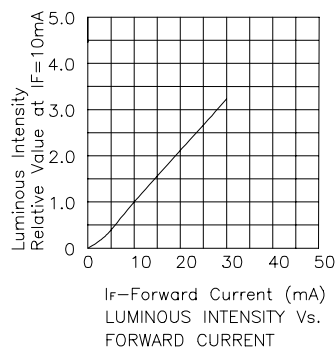
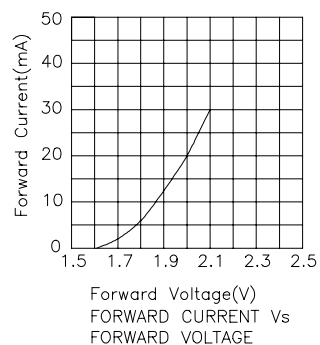
Bright Red L-483HDT



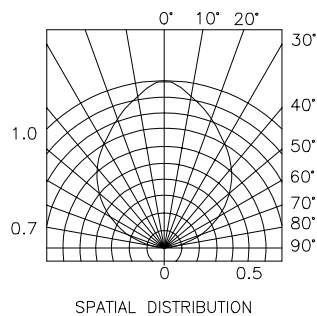
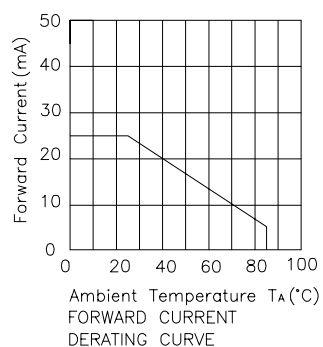
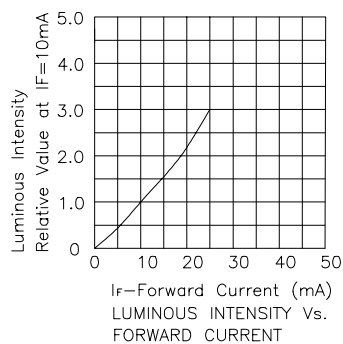
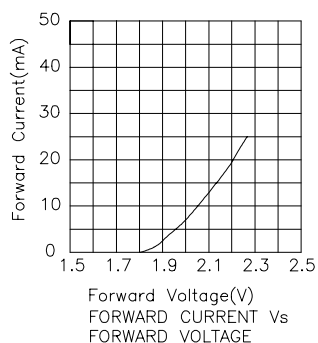
High Efficiency Red L-483IDT



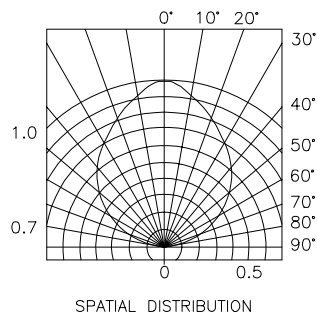
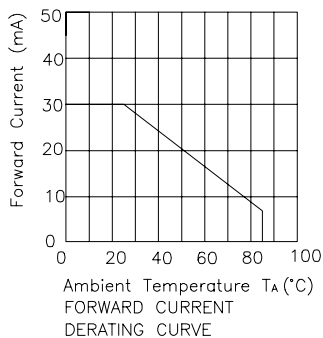
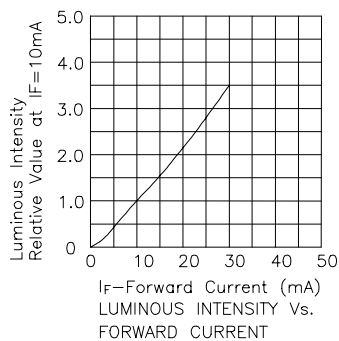
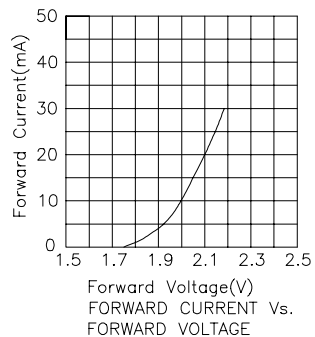
Orange L-483EDT



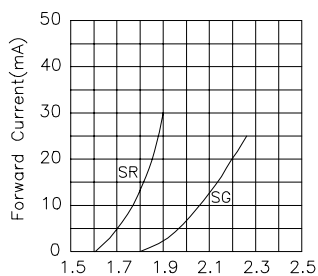
Green L-483GDT



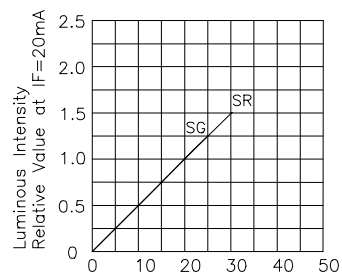
Yellow L-483YDT



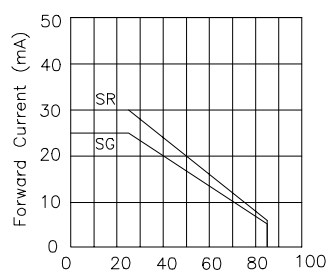
Super Bright Red / Super Bright Green L-483SRSGW



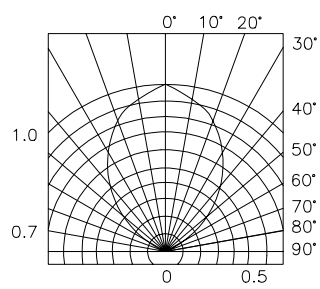
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



I_F —Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION