

W383HDT

BRIGHT RED

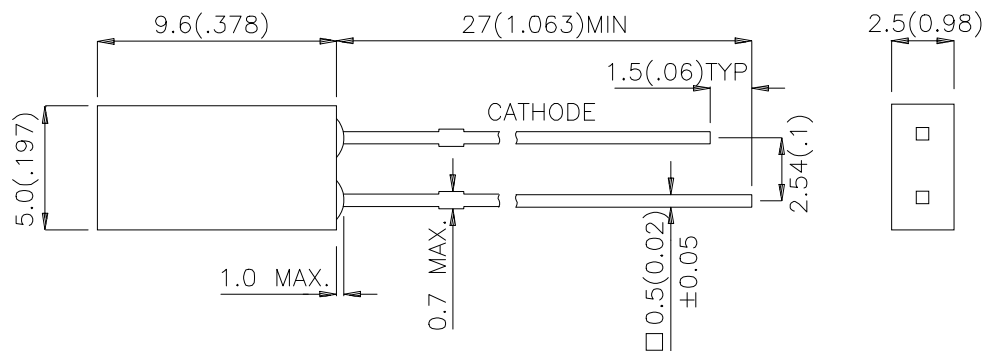
Features

- 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.

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		Viewing Angle
			Min.	Typ.	2 θ 1/2
W383HDT	BRIGHT RED (GaP)	RED DIFFUSED	0.4	1	110°

Note:

1. θ 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	700		nm	I _F =20mA
λ_D	Dominate Wavelength	Bright Red	660		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Bright Red	45		nm	I _F =20mA
C	Capacitance	Bright Red	40		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	Bright Red	2.25	2.5	V	I _F =20mA
I _R	Reverse Current	Bright Red		10	uA	V _R = 5V

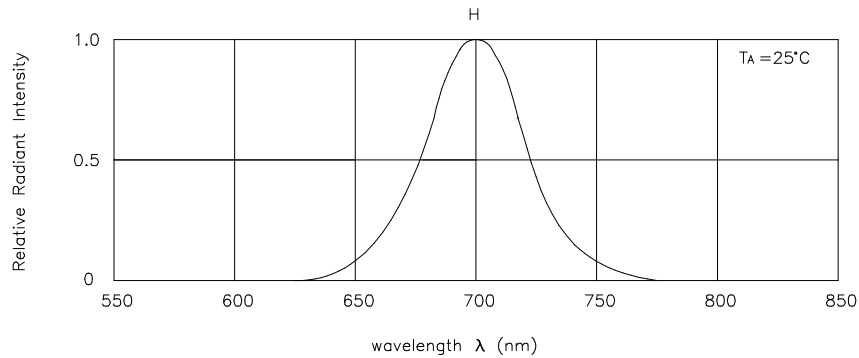
Absolute Maximum Ratings at T_A=25°C

Parameter	Bright Red	Units
Power dissipation	120	mW
DC Forward Current	25	mA
Peak Forward Current [1]	130	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 5 Seconds	

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

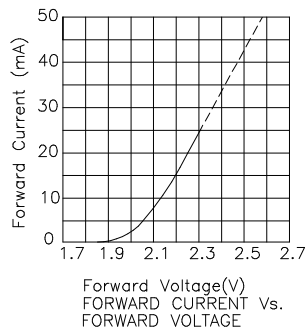
2. 2mm below package base.



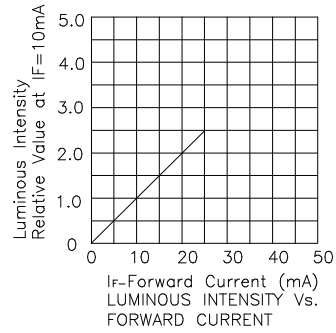
RELATIVE INTENSITY Vs. WAVELENGTH

Bright Red

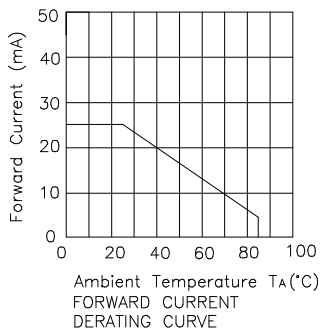
W383HDT



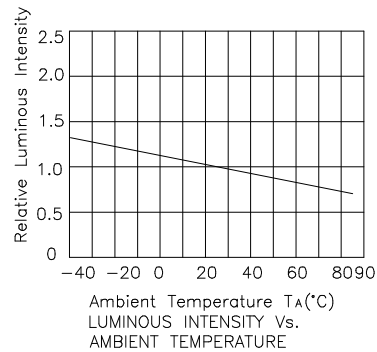
FORWARD CURRENT Vs. FORWARD VOLTAGE



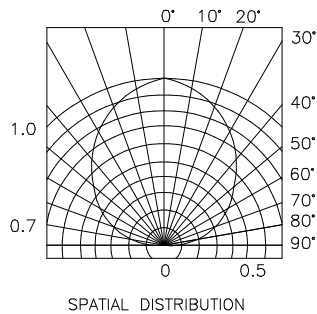
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION