

DD-12HWP	BRIGHT RED
DD-12YWP	YELLOW
DD-12GWP	GREEN

Features

- SUITABLE FOR LEVEL INDICATORS.
- LOW CURRENT OPERATION.
- EXCELLENT ON/OFF CONTRAST.
- WIDE VIEWING ANGLE.
- MECHANICALLY RUGGED.
- DIFFERENT COLORS IN ONE UNIT AVAILABLE.
- BLACK FACE, WHITE SEGMENT.

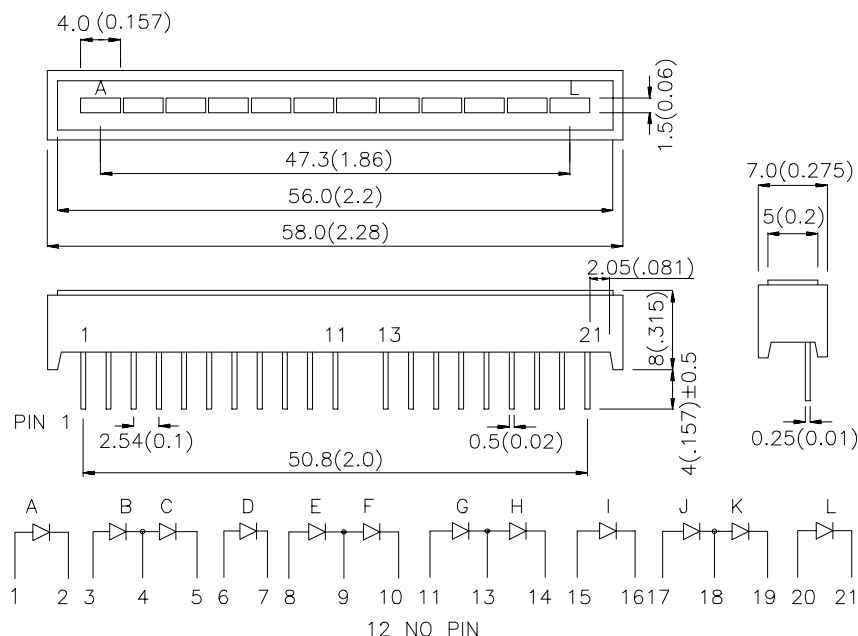
Description

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

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

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

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
2. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10 mA		Description
			Min.	Typ.	
DD-12HWB	BRIGHT RED (GaP)	WHITE DIFFUSED	900	1400	12 Segments Bargraph-Display
DD-12YWB	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	1400	3600	
DD-12GWB	GREEN (GaP)	WHITE DIFFUSED	2200	5600	

Electrical / Optical Characteristics at T_A=25°C

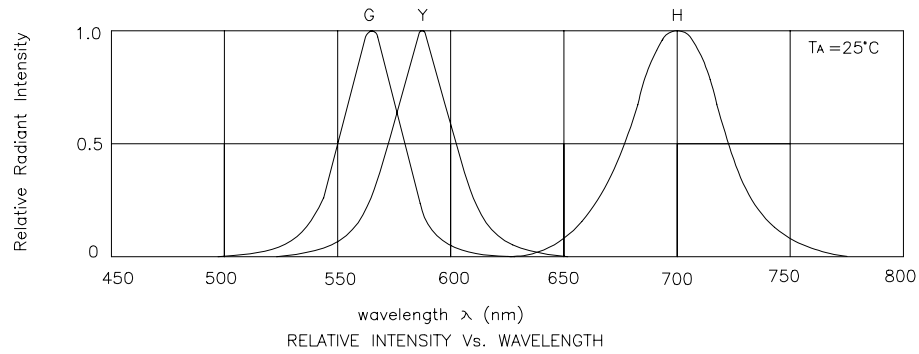
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red Yellow Green	700 590 565		nm	I _F =20mA
λ_D	Dominate Wavelength	Bright Red Yellow Green	660 588 568		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Bright Red Yellow Green	45 35 30		nm	I _F =20mA
C	Capacitance	Bright Red Yellow Green	40 20 15		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	Bright Red Yellow Green	2.25 2.1 2.2	2.5 2.5 2.5	V	I _F =20mA
I _R	Reverse Current	All		10	uA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

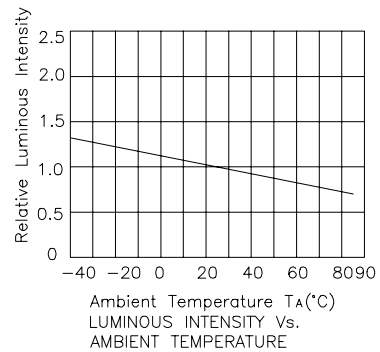
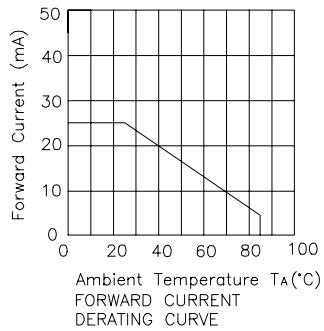
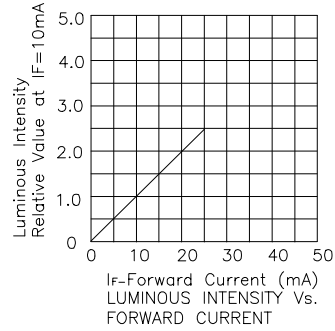
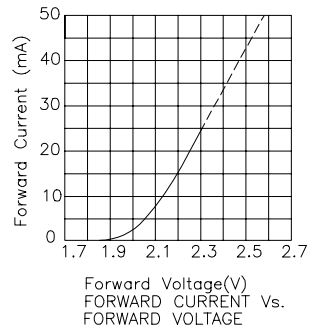
Parameter	Bright Red	Yellow	Green	Units
Power dissipation	120	105	105	mW
DC Forward Current	25	30	25	mA
Peak Forward Current [1]	130	140	140	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 5 Seconds			

Notes:

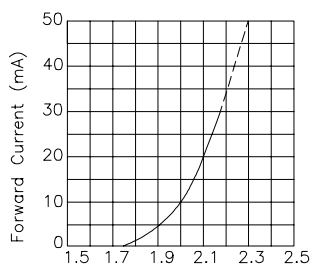
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



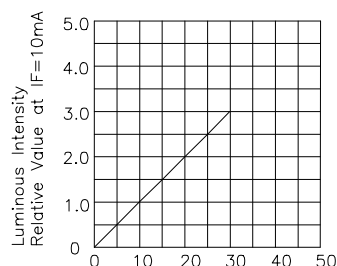
Bright Red



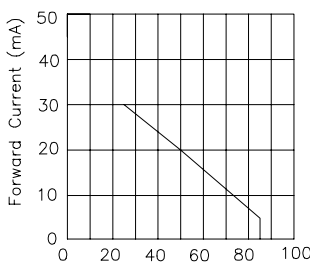
Yellow



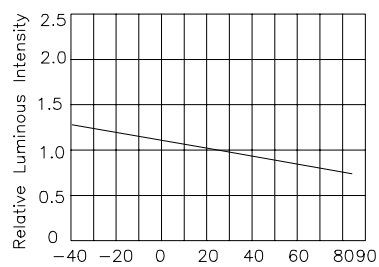
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

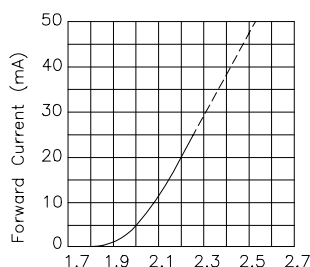


Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE

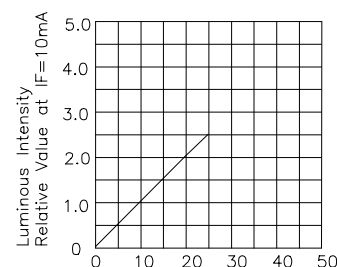


Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

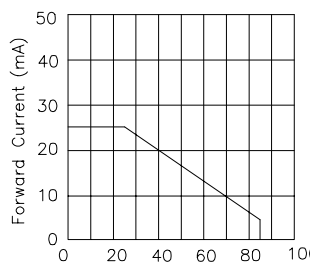
Green



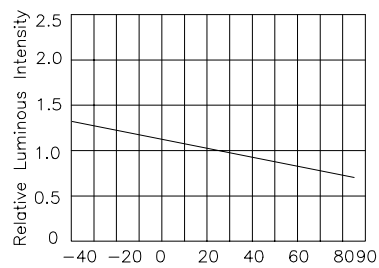
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE