

Kingbright®

12 SEGMENT BAR GRAPH ARRAYS

DD-12H

DD-12G

DD-12Y

Features

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

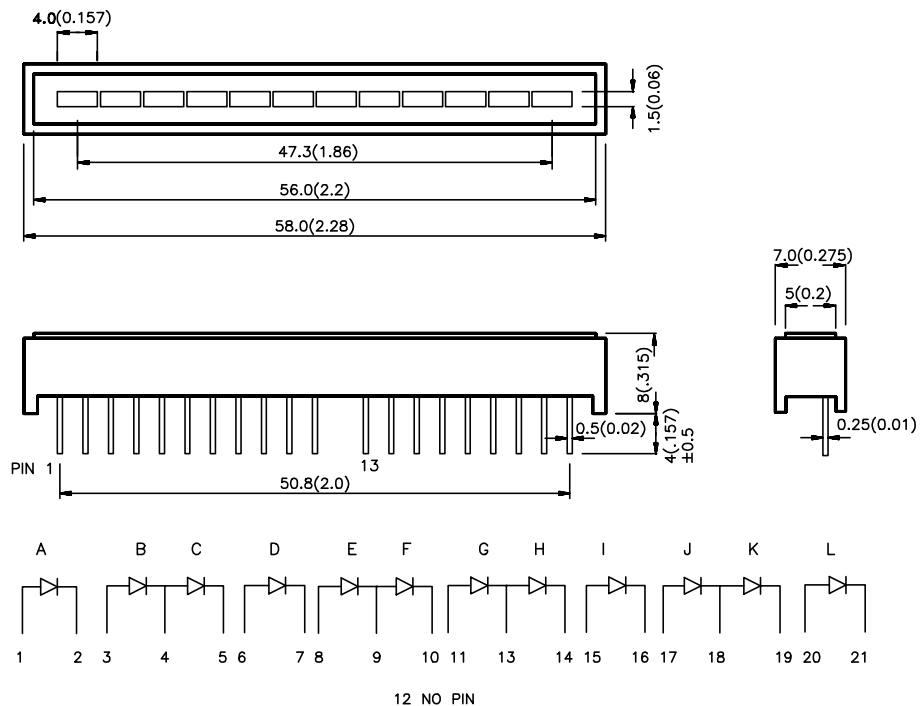
Description

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

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches). Tolerance is ± 0.25 (0.01") unless otherwise noted.
2. Specifications are subjected to change without notice.

Selection Guide

Part No.	Dice	I _v (ucd) @ 10 mA		Description
		Min.	Max.	
DD-12HWP	BRIGHT RED (GaP)	230	470	12 Segments Bargraph-Display
DD-12GWP	GREEN (GaP)	1000	2000	
DD-12YWP	YELLOW (GaAsP/GaP)	1300	2700	

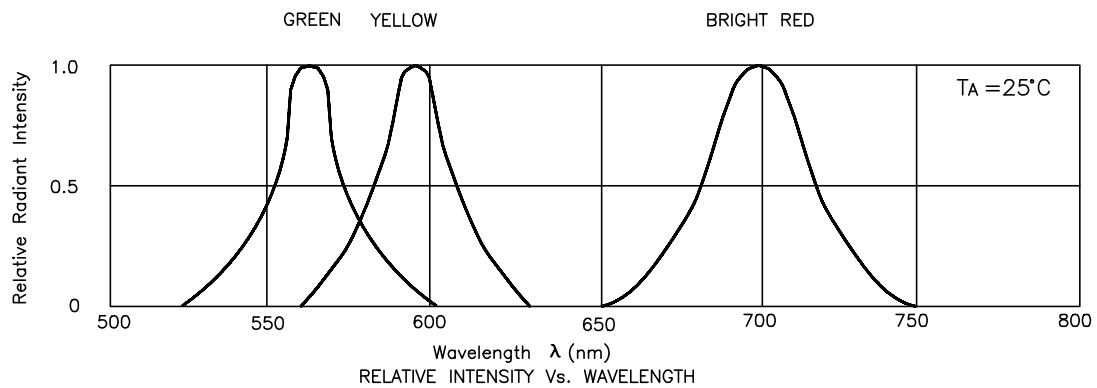
Electrical / Optical Characteristics at T_A=25°C

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

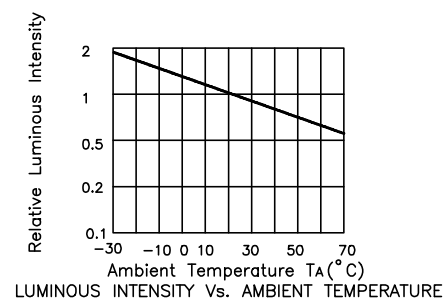
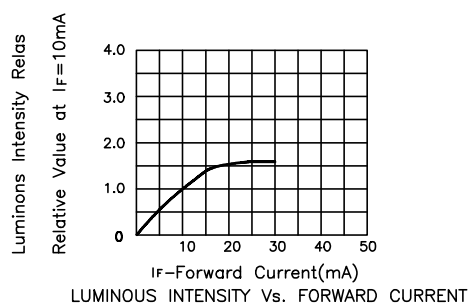
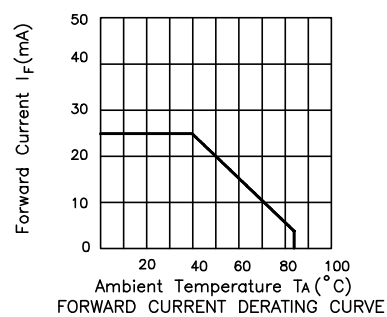
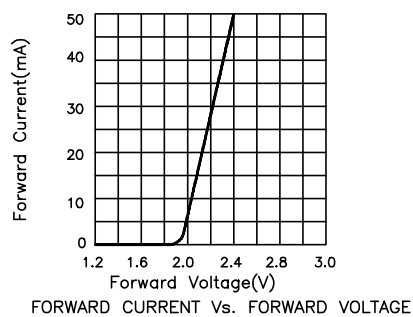
Absolute Maximum Ratings at T_A=25°C

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

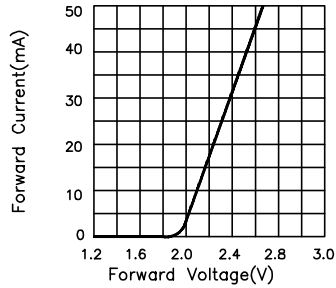
Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



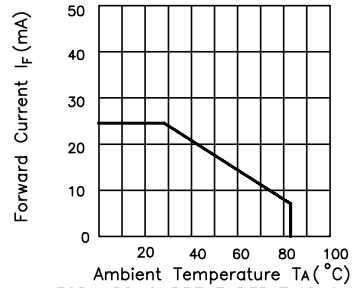
Bright Red



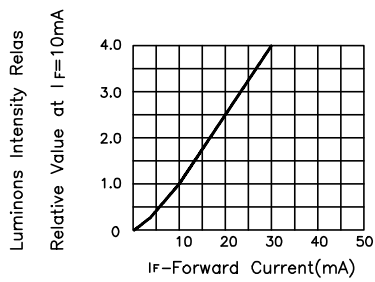
Green



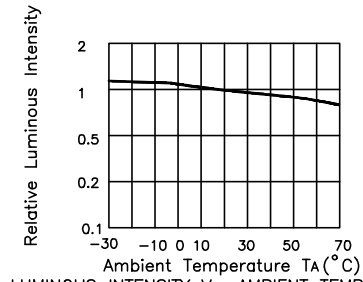
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

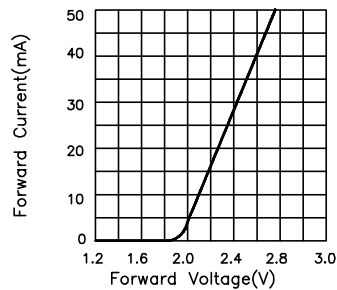


LUMINOUS INTENSITY Vs. FORWARD CURRENT

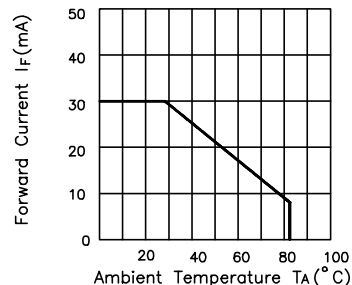


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

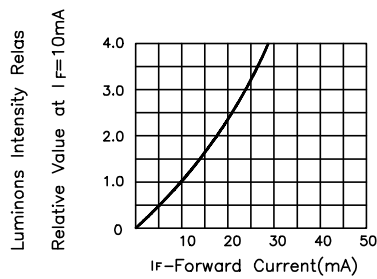
Yellow



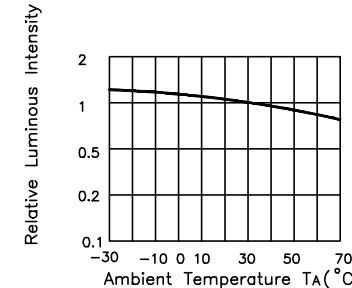
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE