Kingbright

45mm (1.8INCH) SINGLE DIGIT NUMERIC DISPLAYS

P/N: SBC18-11EGWA HIGH EFFICIENCY RED
GREEN

Features

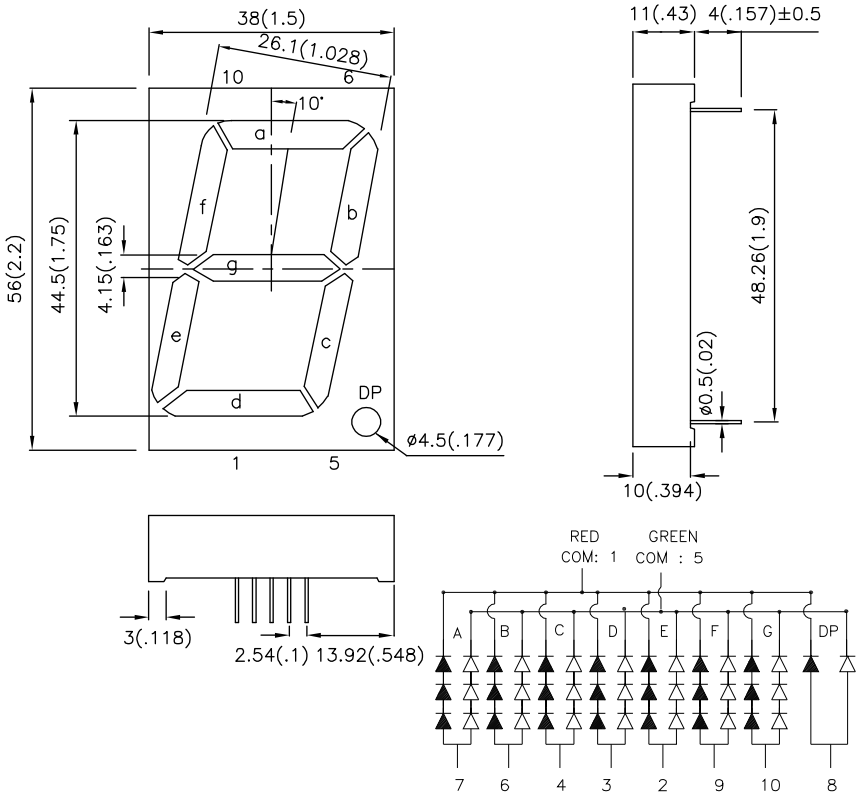
- ●1.8 INCH DIGIT HEIGHT.
- ●LOW CURRENT OPERATION.
- ●EXCELLENT CHARACTER APPEARANCE.
- ●HIGH LIGHT OUTPUT.
- ●EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- ●I.C. COMPATIBLE.
- ●MULTICOLOR AVAILABLE.
- ●MECHANICALLY RUGGED.
- ●STANDARD : GRAY FACE, WHITE SEGMENT.
- ●RoHS COMPLIANT.

Description

The High Efficiency Red source color devices are made With Gallium Arsenide Phosphide on Gallium Phosphide Orange 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 ±0.25(0.01")unless otherwise noted.
2. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10mA		Description
			Min.	Typ.	
SBC18-11EGWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	4700	18000	Common Cathode, Rt. Hand Decimal
	GREEN (GaP)		8000	26000	

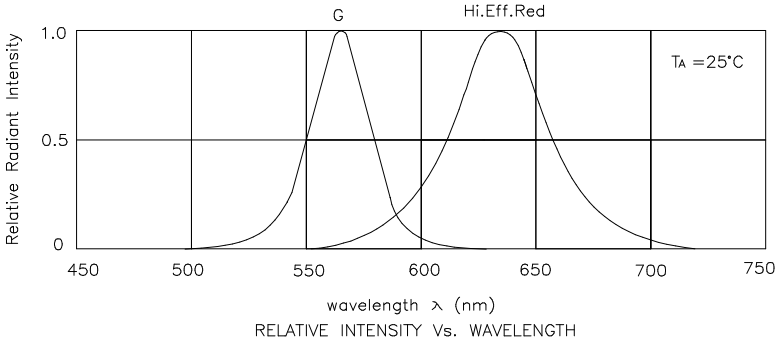
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green	627 565		nm	I_F=20mA
λD	Dominant Wavelength	High Efficiency Red Green	625 568		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Green	45 30		nm	I_F=20mA
C	Capacitance	High Efficiency Red Green	15 15		pF	V_F=0V;f=1MHz
V_F	Forward Voltage Per Segment or (DP)	High Efficiency Red Green	6.0(2.0) 6.6(2.2)	7.5(2.5) 7.5(2.5)	V	I_F=20mA
I_R	Reverse Current Per Segment or (DP)	High Efficiency Red Green		10 10	uA	V_R =15V(5V)

Absolute Maximum Ratings at T_A=25°C

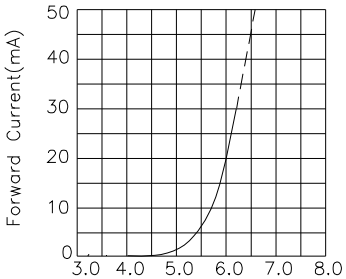
Parameter	High Efficiency Red	Green	Units
Power dissipation Per Segment or (DP)	225 (105)	187.5 (105)	mW
DC Forward Current Per Segment or (DP)	30	25	mA
Peak Forward Current [1] Per Segment or (DP)	160	140	mA
Reverse Voltage Per Segment or (DP)	15(5)		V
Operating/storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 5 Seconds		

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

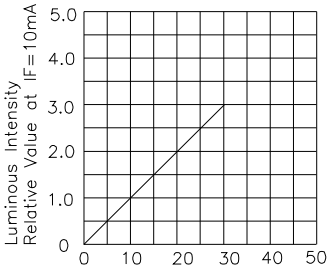


RELATIVE INTENSITY Vs. WAVELENGTH

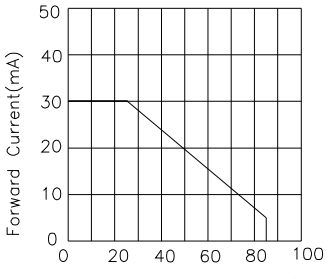
SBC18-11EGWA
High Efficiency Red



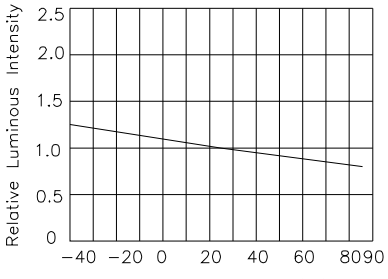
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

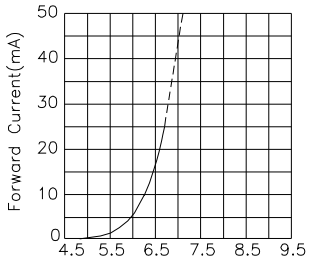


FORWARD CURRENT
DERATING CURVE

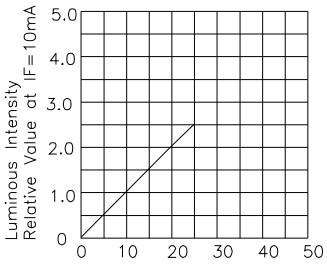


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

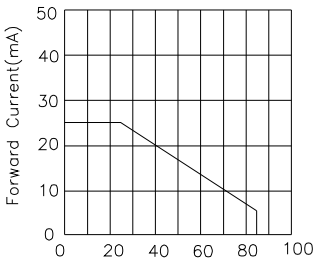
Green



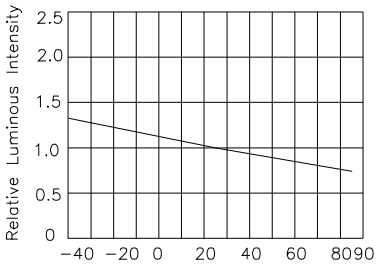
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

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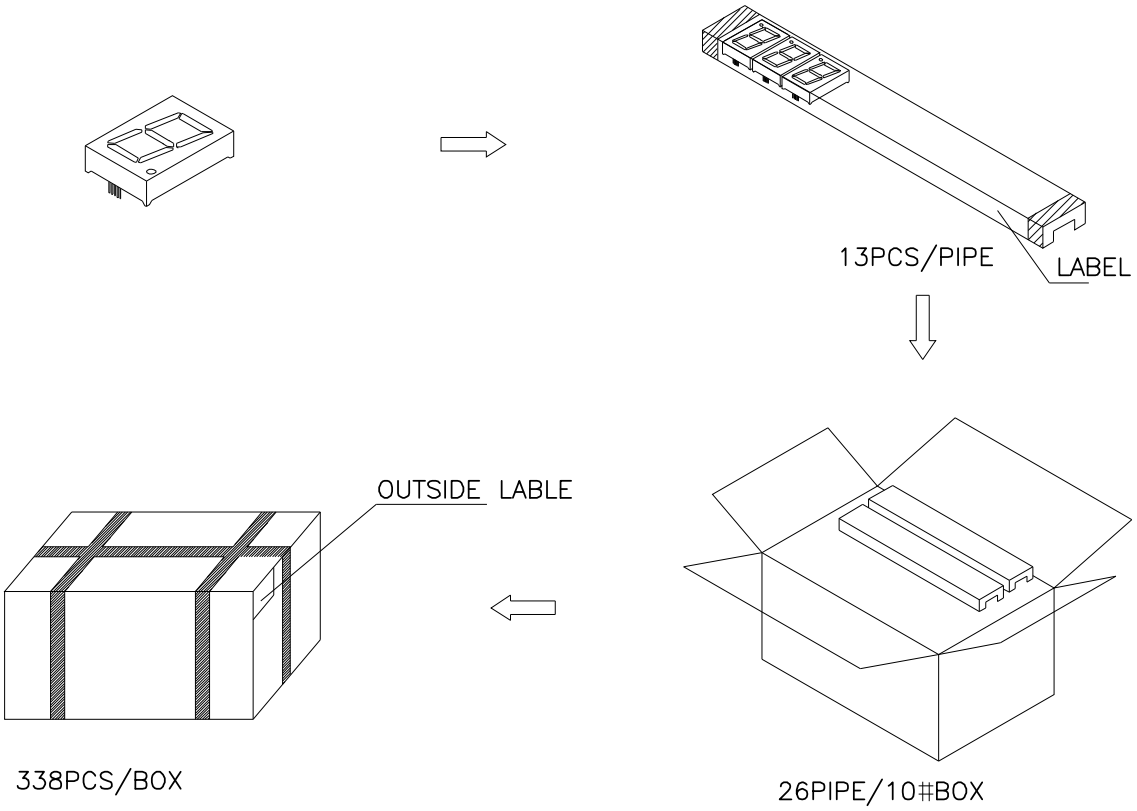
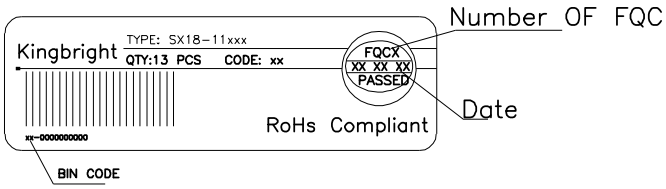
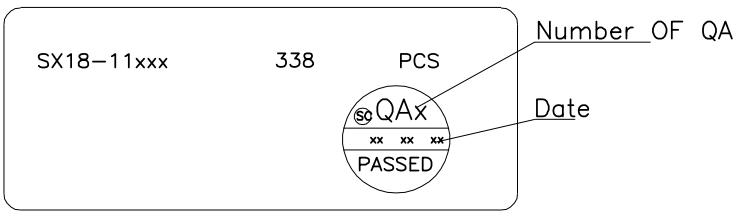
PACKING & LABEL SPECIFICATIONS **SBC18-11EGWA**



Inside LABEL Paste On The IC-pipe



Outside LABEL Paste On The Box



Remarks:
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:
1. Wavelength: +/-1nm
2. Luminous intensity/ luminous flux: +/-15%
3. Forward Voltage: +/-0.1V
Note: Accuracy may depend on the sorting parameters.