

T-1 3/4 (5mm) VARIABLE HEIGHT LED BOARD **INDICATOR**

Part Number: L-7113BR-17.8/ID

High Efficiency Red

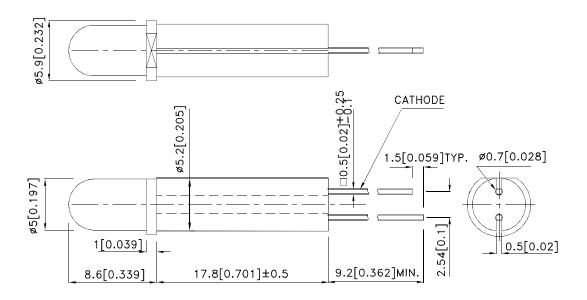
Features

- LED firmly held by spacer-no additional fixturing or glueing
- Suitable for back panel illumination, circuit board indicator, LED indicator.
- Housing UL rating: 94V-0.
- Housing material: type 66 nylon.
- RoHS compliant.

Description

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

Package Dimensions



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
 The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

SPEC NO: DSAE7415 **REV NO: V.7A** DATE: APR/07/2013 **APPROVED: WYNEC CHECKED: Allen Liu** DRAWN: Q.M.Chen





PAGE: 1 OF 5

ERP: 1102001447

Selection Guide

Part No.	Part No. Dice Lens Type		lv (mcd) [2] @ 10mA		Viewing Angle [1]
			Min.	Тур.	201/2
L-7113BR-17.8/ID	High Efficiency Red (GaAsP/GaP)	Red Diffused	25	25	- 30°
		Trea Billacea	*18	*40	

Notes:

- 1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- Luminous intensity/ luminous Flux: +/-15%.
 * Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
λD [1]	Dominant Wavelength	High Efficiency Red	617		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
С	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	2	2.5	V	IF=20mA
lr	Reverse Current	High Efficiency Red		10	uA	V _R = 5V

Notes:

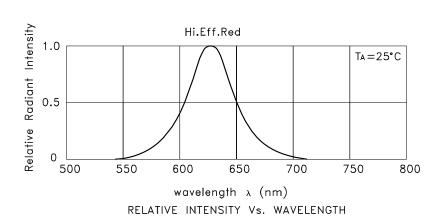
- 1.Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

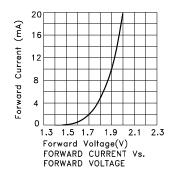
Parameter	High Efficiency Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	160	mA	
Reverse Voltage	5	V	
Operating/Storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

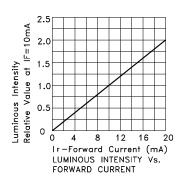
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 2mm below package base.
 3. 5mm below package base.

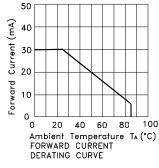
SPEC NO: DSAE7415 **REV NO: V.7A** DATE: APR/07/2013 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Q.M.Chen ERP: 1102001447

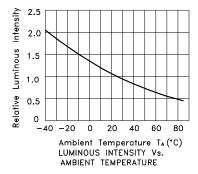


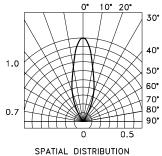
High Efficiency Red L-7113BR-17.8/ID



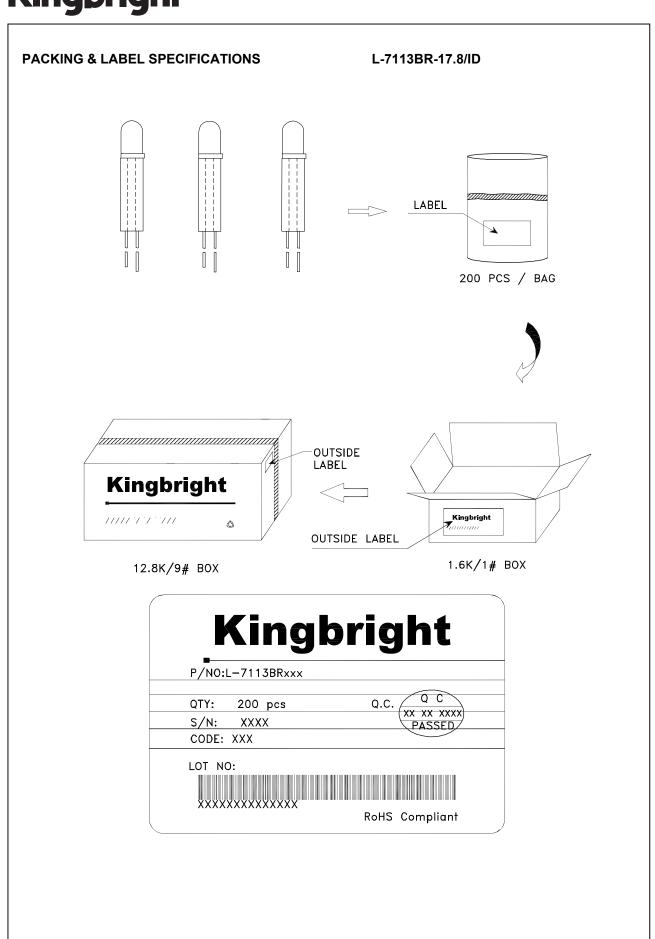








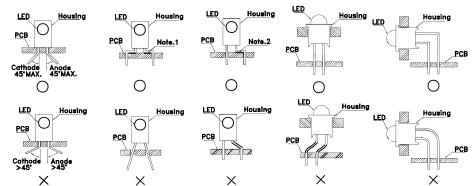
SPEC NO: DSAE7415 REV NO: V.7A DATE: APR/07/2013 PAGE: 3 OF 5
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1102001447



SPEC NO: DSAE7415 APPROVED: WYNEC REV NO: V.7A CHECKED: Allen Liu DATE: APR/07/2013 DRAWN: Q.M.Chen PAGE: 4 OF 5 ERP: 1102001447

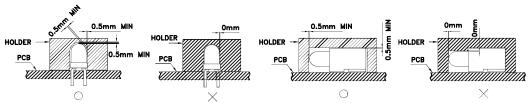
PRECAUTIONS

 The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead—forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

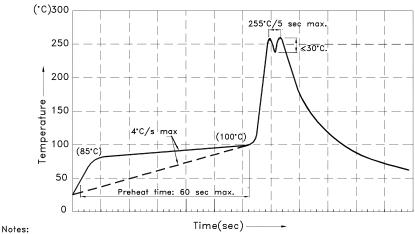


" \bigcirc " Correct mounting method "imes" Incorrect mounting method

2. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.



- 3. The tip of the soldering iron should never touch the lens epoxy.
- 4. Through—hole LEDs are incompatible with reflow soldering.
- 5. If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.
- 6. Recommended Wave Soldering Profiles:



- 1.Recommend pre—heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
- 2.Peak wave soldering temperature between 245°C \sim 255°C for 3 sec (5 sec max).
- 3.Do not apply stress to the epoxy resin while the temperature is above 85°C.
- 4.Fixtures should not incur stress on the component when mounting and during soldering process.
- 5.SAC 305 solder alloy is recommended.
- 6.No more than one wave soldering pass.

Detailed application notes are listed on our website.

http://www.kingbright.com/application notes

SPEC NO: DSAE7415 REV NO: V.7A DATE: APR/07/2013 PAGE: 5 OF 5
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1102001447