

# T-1 (3mm) RIGHT ANGLE LED INDICATOR

Part Number: L-710A8RS/1SRD

Super Bright Red

### **Features**

- Pre-trimmed leads for pc mounting.
- Pillars are designed for positioning the housing on P.C.

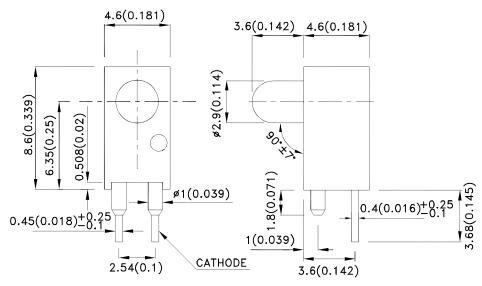
#### oard.

- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Housing UL rating:94V-0.
- Housing material: type 66 nylon.
- RoHS compliant.

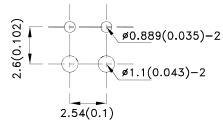
## Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

# **Package Dimensions**



# RECOMMENDED PCB LAYOUT



### Notes:

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

SPEC NO: DSAE7183 REV NO: V.8A DATE: SEP/26/2013
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Y.Liu





PAGE: 1 OF 5

ERP: 1102007291

## **Selection Guide**

Part No.	Part No. Dice Lo		lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
L-710A8RS/1SRD	Super Bright Red (GaAlAs)	Dad Diffused	180	350	40°
		Red Diffused	*40	*80	

- $1. \theta^{1/2}$  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	Super Bright Red	655		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	IF=20mA
С	Capacitance	Super Bright Red	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Red	1.85	2.5	V	IF=20mA
lR	Reverse Current	Super Bright Red		10	uA	VR = 5V

# Notes:

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

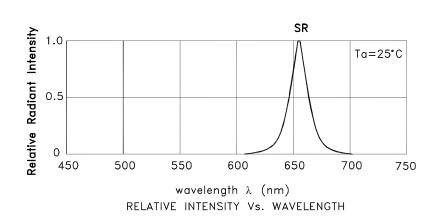
# Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Red	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	155	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			

#### Notes:

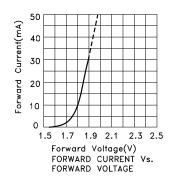
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

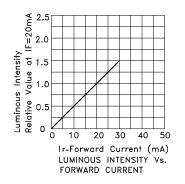
SPEC NO: DSAE7183 **REV NO: V.8A** DATE: SEP/26/2013 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.Liu ERP: 1102007291

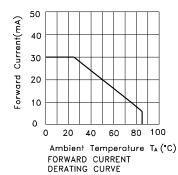


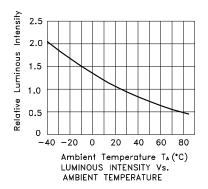
Super Bright Red L-

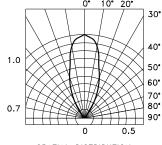
L-710A8RS/1SRD





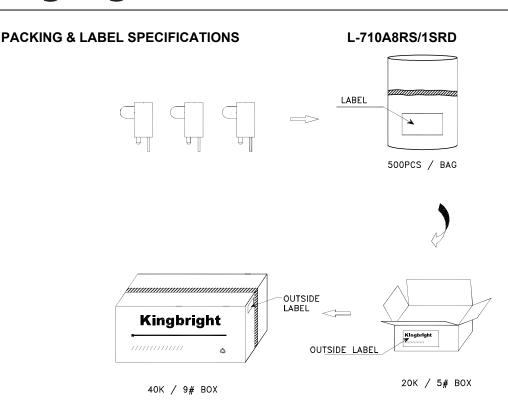


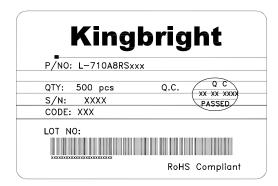




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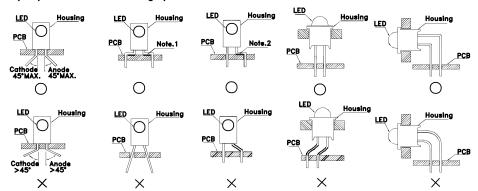
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SPEC NO: DSAE7183 REV NO: V.8A DATE: SEP/26/2013 PAGE: 4 OF 5
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Y.Liu ERP: 1102007291

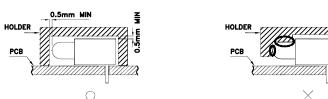
### **PRECAUTIONS**

1. 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.

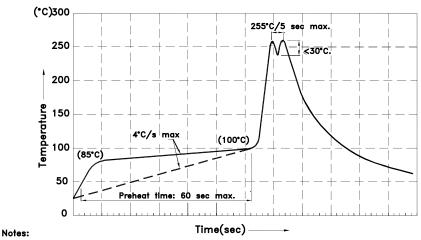


"() " Correct mounting method "imes" Incorrect mounting method

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 ~ 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.

SPEC NO: DSAE7183 REV NO: V.8A DATE: SEP/26/2013 PAGE: 5 OF 5
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