Kingbright

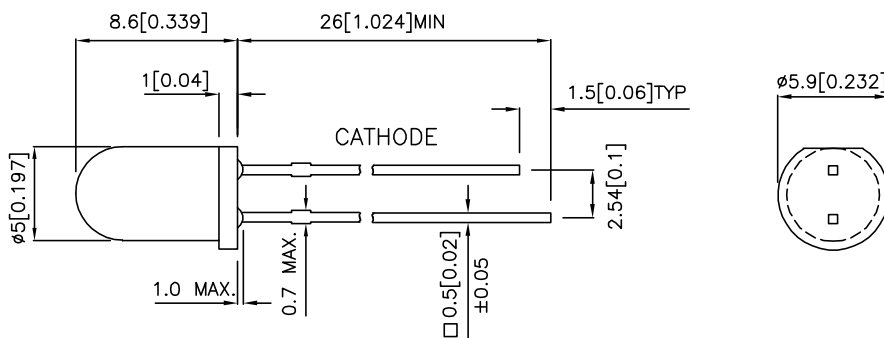**T-1 3/4 (5mm) ROUND LED LAMP**

L-7143SRC-C   SUPER BRIGHT RED

Features

- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- IC COMPATIBLE/LOW CURRENT CAPABILITY.
- RoHS COMPLIANT.

Description

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

Package Dimensions

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the lead emerge from the package.
4. Specifications are subject to change without notice.

Kingbright

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
L-7143SRC-C	SUPER BRIGHT RED (GaAIAs)	WATER CLEAR	380	600	30°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

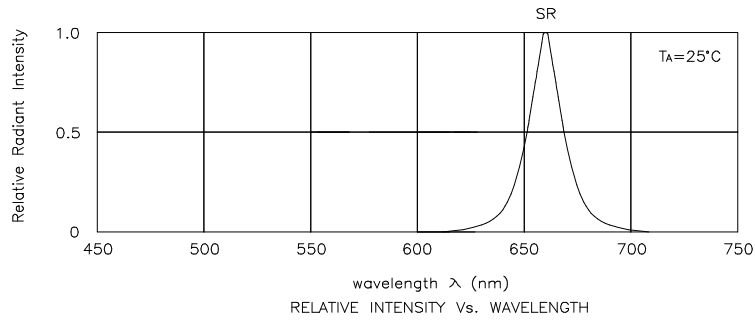## Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	660		nm	I_F=20mA
λD	Dominant Wavelength	Super Bright Red	640		nm	I_F=20mA
$\Delta\lambda$1/2	Spectral Line Half-width	Super Bright Red	20		nm	I_F=20mA
C	Capacitance	Super Bright Red	45		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Super Bright Red	1.85	2.5	V	I_F=20mA
I_R	Reverse Current	Super Bright Red		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

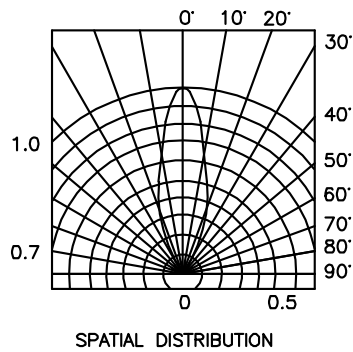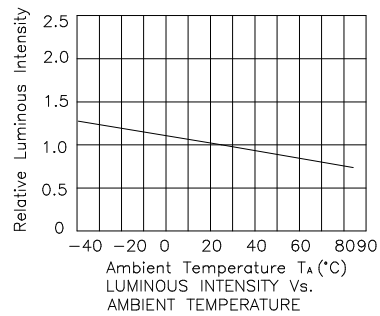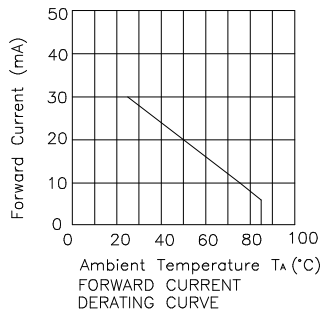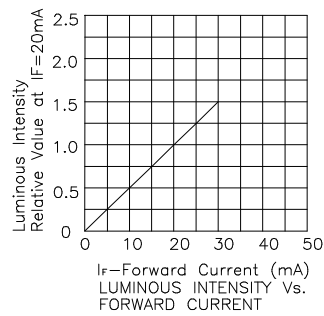| Parameter	Super Bright Red	Units
Power dissipation	100	mW
DC Forward Current	30	mA
Peak Forward Current [1]	155	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

Kingbright

RELATIVE INTENSITY Vs. WAVELENGTH

Super Bright Red   **L-7143SRC-C**

FORWARD CURRENT Vs. FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

FORWARD CURRENT DERATING CURVE

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION
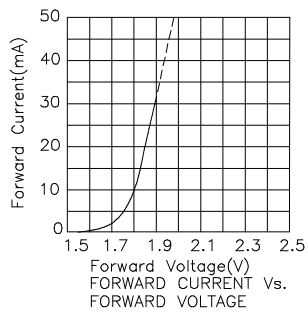
Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength),

the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.