5mm LEDs

Order code	Manufacturer code	Description
55-1520	L-7113SYD	5MM U/BRIGHT YELLOW DIFF.LED (RC)

Sales: 01206 751166
Sales@rapidelec.co.uk
Technical: 01206 835555
Tech@rapidelec.co.uk
Fax: 01206 751188
www.rapidelectronics.co.uk

Kingbright

T-1 3/4 (5mm) SOLID STATE LAMP

P/N: L-7113SYD SUPER BRIGHT YELLOW

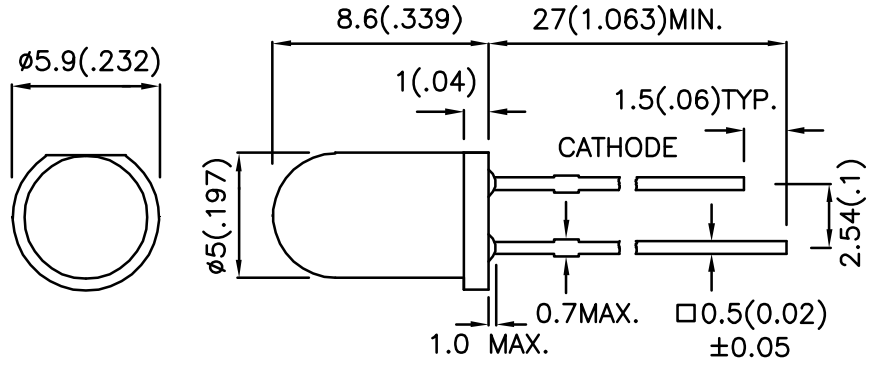
Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- RoHS COMPLIANT.

Description

The Super Bright Yellow device is made with DH InGaAlP (on GaAs substrate) light emitting diode chip.

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 leads emerge from the package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-7113SYD	SUPER BRIGHT YELLOW (InGaAlP)	YELLOW DIFFUSED	110	400	30°

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

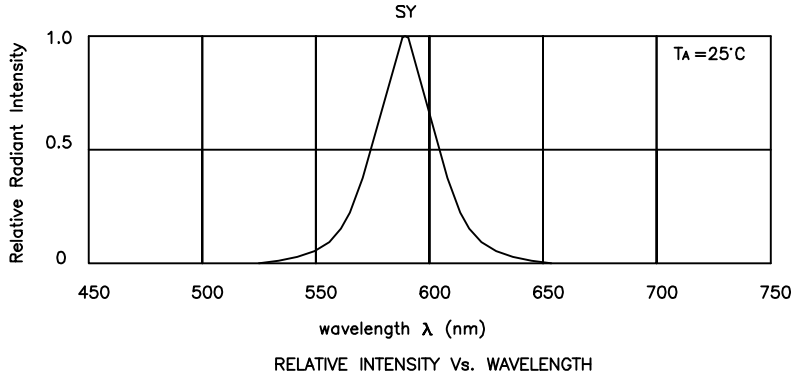
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	I_F=20mA
λD	Dominant Wavelength	Super Bright Yellow	588		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	28		nm	I_F=20mA
C	Capacitance	Super Bright Yellow	25		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Super Bright Yellow	2.0	2.5	V	I_F=20mA
I_R	Reverse Current	Super Bright Yellow		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

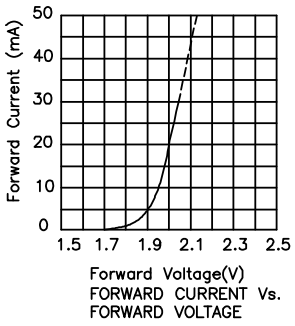
Parameter	Super Bright Yellow	Units
Power dissipation	125	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

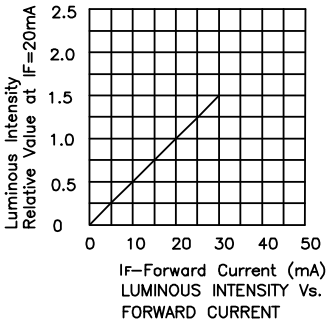


RELATIVE INTENSITY Vs. WAVELENGTH

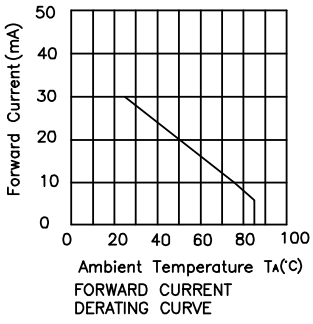
Super Bright Yellow L-7113SYD



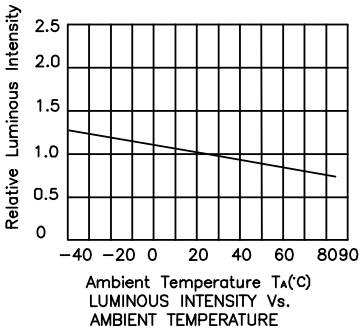
FORWARD CURRENT Vs. FORWARD VOLTAGE



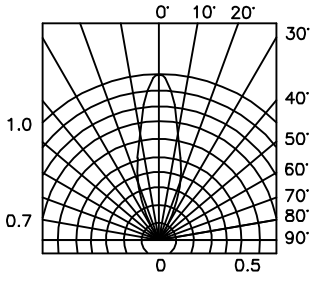
LUMINOUS INTENSITY Vs. FORWARD CURRENT



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/ 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.