PRELIMINARY SPEC

Part Number: WP7676CSYC/J SUPER BRIGHT YELLOW

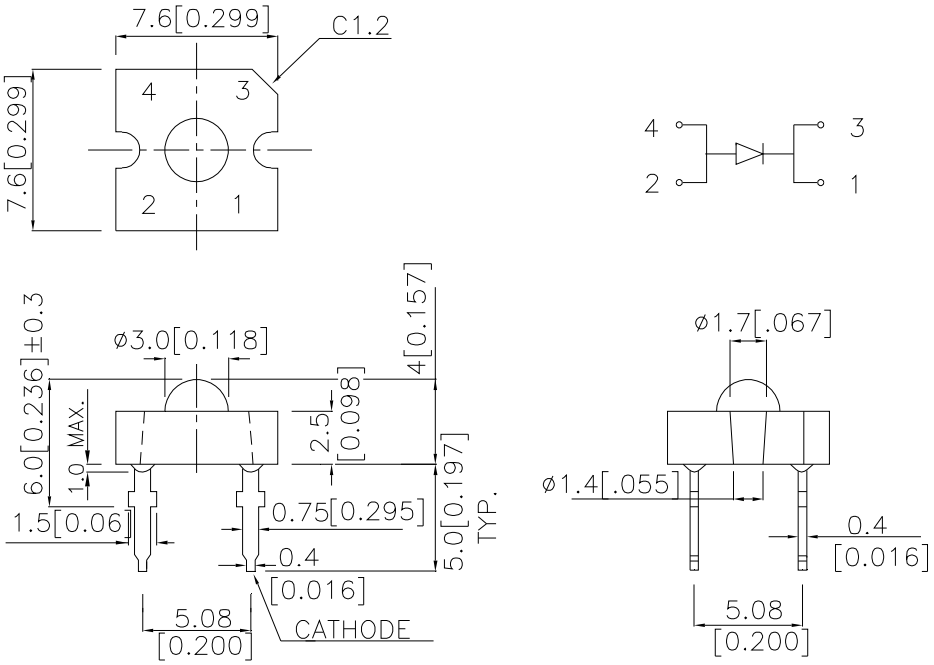
Features

- SUPER FLUX OUTPUT.
- DESIGN FOR HIGH CURRENT OPERATION.
- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- RoHS COMPLIANT.

Description

The Super Bright device is based on a light emitting diode chip made from AlGaInP and bonded on silicon substrate.

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.

Kingbright

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [5] @ 20mA *70mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP7676CSYC/J	SUPER BRIGHT YELLOW (AlGaInP)	WATER CLEAR	380	900	70°
			*1500	*3500	

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. * Luminous intensity with asterisk is measured at 70mA under 40ms pulse width.
3.Drive current between 10mA and 30mA are recommended for long term performance.
4.Operation at current below 10mA is not recommended.
5. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at T_A=25°C

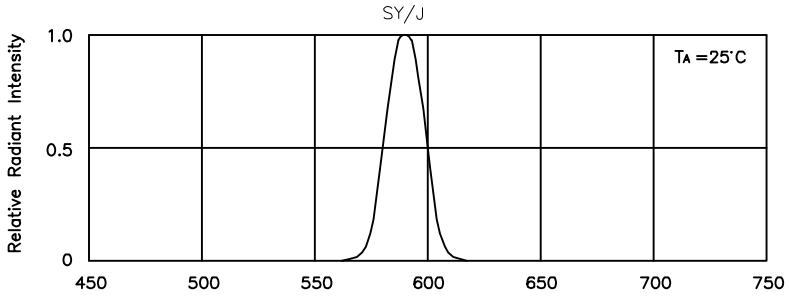
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	I_F=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	589		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	I_F=20mA
C	Capacitance	Super Bright Yellow	45		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Super Bright Yellow	2.3	2.8	V	I_F=20mA
I_R	Reverse Current	Super Bright Yellow		10	uA	V_R = 5V

Notes:
1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at T_A=25°C

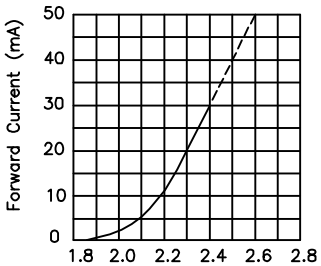
Parameter	Super Bright Yellow	Units
Power dissipation	84	mW
DC Forward Current	30	mA
Peak Forward Current [1]	140	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

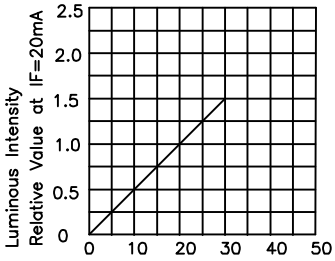


RELATIVE INTENSITY Vs. WAVELENGTH

Super Bright Yellow **WP7676CSYC/J**

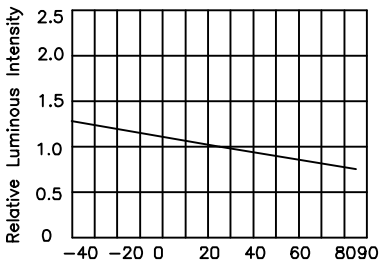


FORWARD CURRENT Vs.
FORWARD VOLTAGE

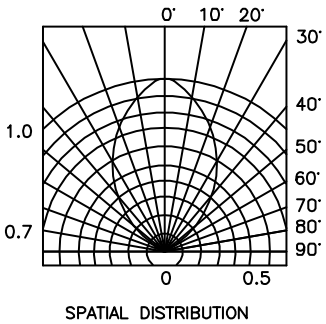


LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

PACKING & LABEL SPECIFICATIONS **WP7676CSYC/J**