

LED

EXTREMELY-THIN 0603
0.2 mm HIGH

ADVANTAGES

- Reduce spacer thickness and/or eliminate embossing (cost reduction!)
- Market standard tape & reel for automated pick & place machines
- Can be run at lower current levels

FUNCTIONALITIES

- Specific DESIGN for Printed Conductive Ink

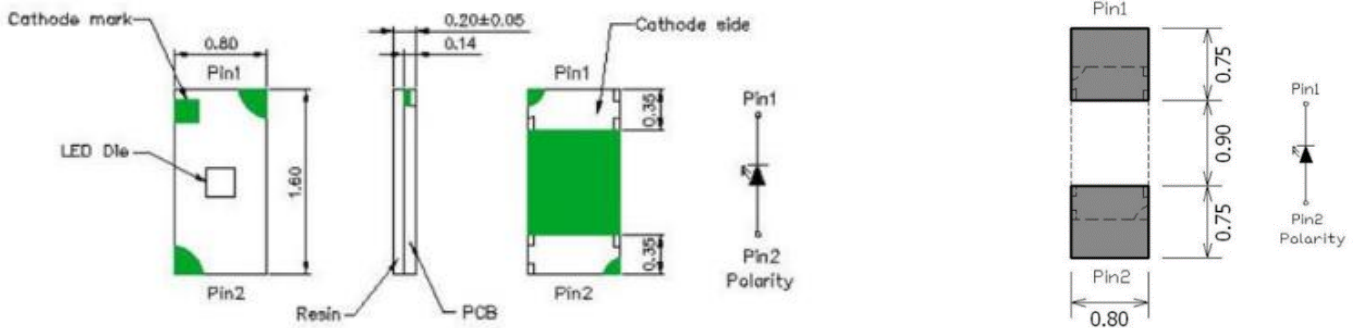
TECHNICAL DATA

ELECTRO-OPTICAL CHARACTERISTICS ($I_F=20\text{mA}$ / $T_a=25^\circ\text{C}$)

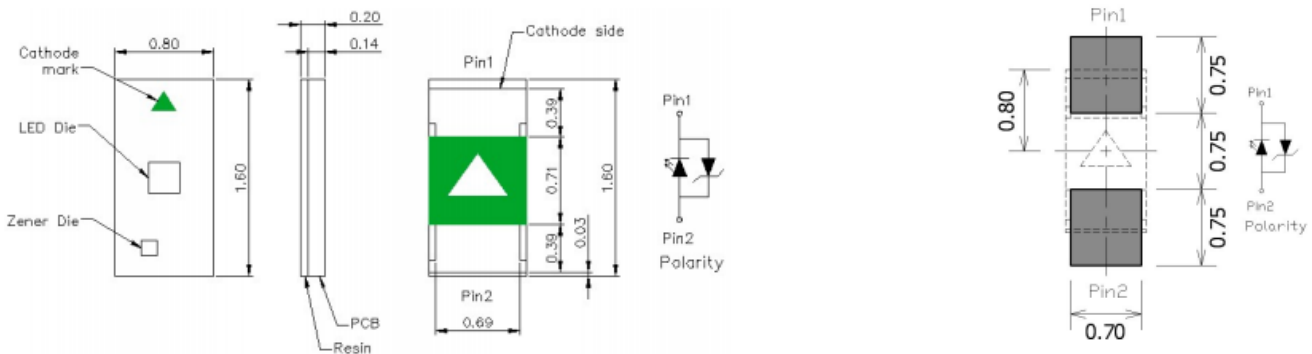
Part Number	Lens Type	Emitting Color	Die Material	Dominant Wavelength λ_d (nm)	Luminous Intensity I_v (mcd)		Viewing angle (deg)
					Min.	Typ.	
R6ZRG20W-02	Water Clear	Green	AllnGaP	571	28.5	71.5	X=105, Y=120
R6ZRR20W-02	Water Clear	Red	AllnGaP	631	45	71.5	X=105, Y=120
R6ZRO20W-02	Water Clear	Orange	AllnGaP	605	28.5	71.5	X=105, Y=120
R6ZRY20W-02	Water Clear	Yellow	AllnGaP	589	45	71.5	X=105, Y=120
R6ZRB20W-02	Water Clear	Blue	InGaN	470	71.5	180	X=130, Y=150
R6ZRW20D-02	Yellow Diffused	White	InGaN	-	360	560	X=130, Y=130

PACKAGE DIMENSION & RECOMMENDED SOLDER PATTERN

Green, Red, Orange, Yellow

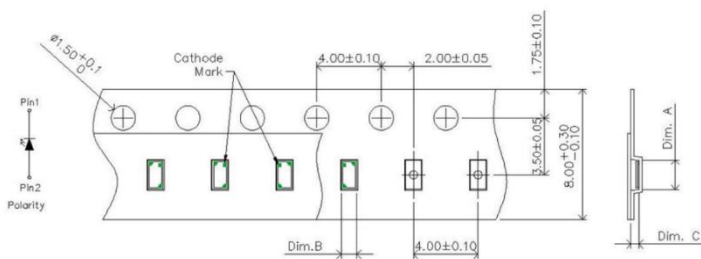


Blue, White

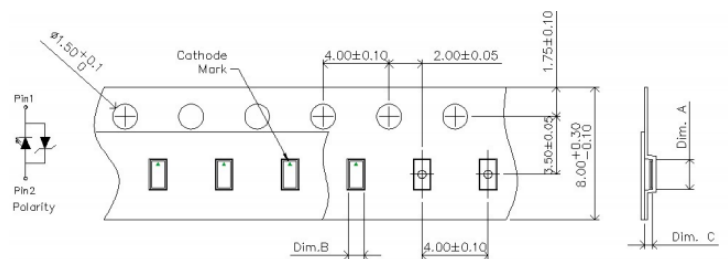


CARRIER TAPE DIMENSION

Green, Red, Orange, Yellow



Blue, White



Dim. A	Dim. B	Dim. C	Q'ty/Reel
1.77±0.05	0.97±0.05	0.51±0.05	3K

Unit: mm

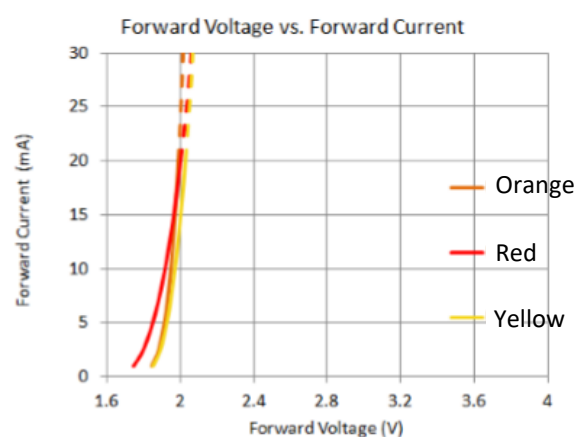
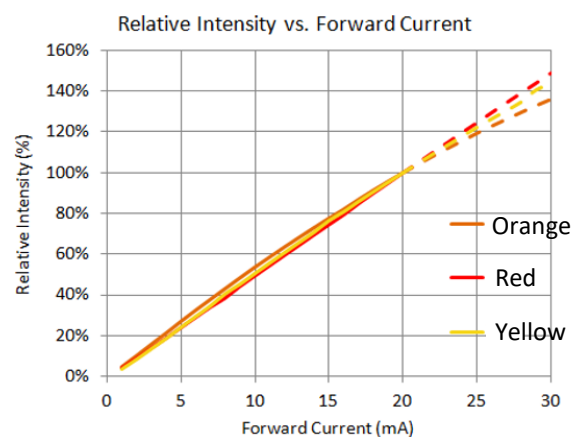
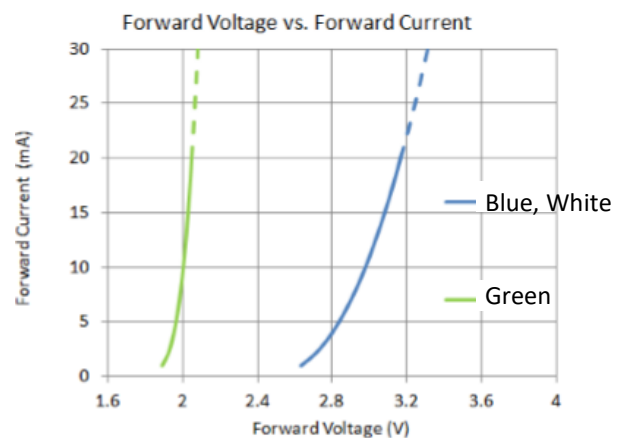
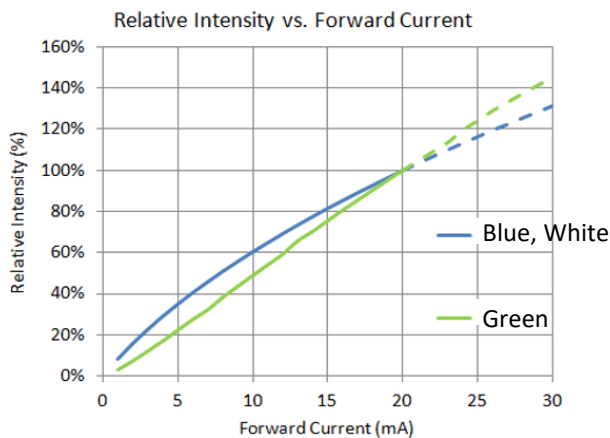
TECHNICAL DATA

PRODUCT CHARACTERISTICS (ABSOLUTE MAXIMUM RATINGS)

	Red / Orange / Yellow / Green	Blue	White
Reverse voltage V_R	5V	0.5~1.5V @ $I_R = 20$ mA	
Forward current I_F	20 mA	20 mA	20 mA
Peak Forward Current I_{FP} (Duty 1/10 @ 1KHz)	40 mA	60 mA	60 mA
Power Dissipation P_d	48 mW	78 mW	66 mW
Electrostatic Discharge (ESD)	2000 V		
Operating temperature T_{opr}	-40°C to +85°C		
Storage temperature T_{stg}	-40°C to +100°C		
Soldering temperature T_{sol}	217°C for 60~150 sec. 260°C for 10sec Max.		

Tolerances:
 • Luminous Intensity (I_v): $\pm 11\%$
 • Dominant Wavelength (λ_d): $\pm 1nm$
 • Forward Voltage (V_f): $\pm 0.1V$

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES



OTHER INFORMATION

PRECAUTIONS FOR USE



Electrostatic Discharge (ESD) protection



The symbol to the left denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are **STATIC SENSITIVE devices**. **ESD precaution must be taken during design and assembly**. If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.