

LED

0805 0.5mm
Four Wall

ADVANTAGES

- Avoid the light leakage
- Make your product high quality

FUNCTIONALITIES

- Market standard for 0805 size
- Use for LEDs that are too close (<0.5mm)

Technical Data ($I_F=20\text{mA}$ / $T_a=25^\circ\text{C}$)

Part Number	Emitting Color	Material	Dominant Wavelength λ_d (nm)	Luminous Intensity I_v (mcd)	Viewing Angle (Deg)
4W-ZR0805-05	Red	AlGaInP	656	71.5 - 285	-
4W-ZB0805-05	Blue	InGaN	458	11.25 - 71.5	-
4W-ZG0805-05	Green	AllnGaP	571	11.25 - 71.5	-
4W-ZW0805-05	White	InGaN	C1,C2,D1,D2	45 - 180	-

PRODUCT CHARACTERISTICS (ABSOLUTE MAXIMUM RATINGS)

	Red	Blue	Green	White
Voltage V_F	2 - 2.4	2.7 - 3.9	1.6 - 2.4	2.7 - 3.9
Forward current I_F	20	20	20	20
Peak Forward Current I_{FP} (Duty 1/10 @ 1KHz)	30	30	30	30
Power Dissipation P_d	48	19.5	48	78
Operating temperature T_{opr}	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
Storage temperature T_{stg}	-40 to +100°C	-40 to +100°C	-40 to +100°C	-40 to +100°C

TECHNICAL DATA

PRODUCT CHARACTERISTICS (ABSOLUTE MAXIMUM RATINGS)

	Green	Red	Blue	White
Reverse voltage V_R	5V	5V	5V	
Forward current I_F	20 mA	20 mA	20 mA	20 mA
Peak Forward Current I_{FP} (Duty 1/10 @ 1KHz)	30 mA	30 mA	30 mA	30 mA
Power Dissipation P_d	48 mW	48 mW	78 mW	78 mW
Electrostatic Discharge (ESD)	2000 ESD	2000 ESD	200 ESD	
Operating temperature T_{opr}	-40°C to +85°C			
Storage temperature T_{stg}	-40°C to +100°C			
Soldering temperature T_{sol}	Above 217°C ,60~150 sec. 260°CMax.,10sec Max.			

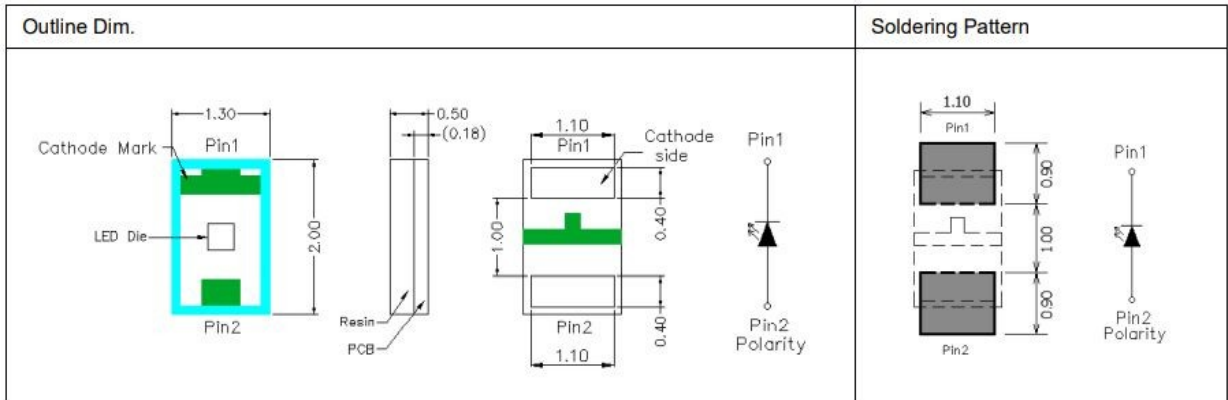
- Tolerances:
- Luminous Intensity (I_v): $\pm 11\%$
 - Dominant Wavelength (λ_d): $\pm 1\text{nm}$
 - Forward Voltage (V_F): $\pm 0.1\text{V}$

PACKAGE DIMENSION & RECOMMENDED SOLDER PATTERN

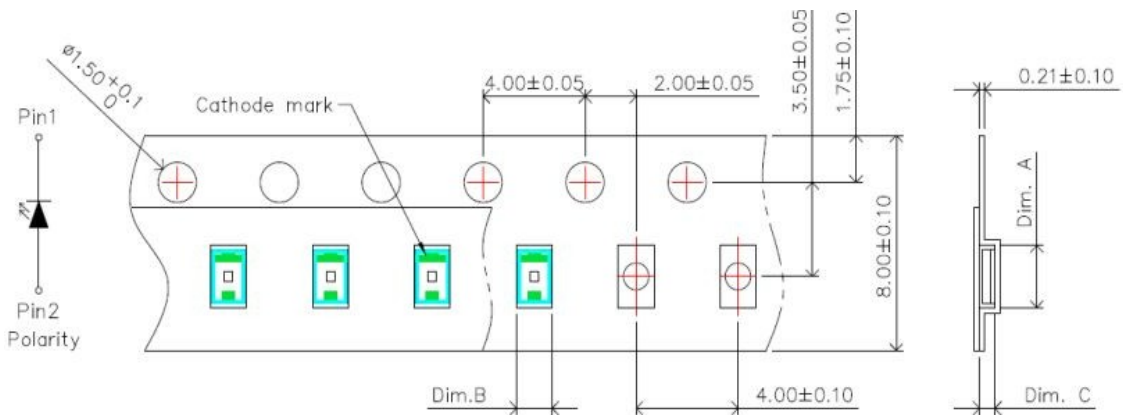
TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

Package Outline Dimension and Recommended Soldering Pattern for Reflow Soldering

(Unit: mm Tolerance: +/-0.1)



CARRIER TAPE DIMENSION



Dim. A	Dim. B	Dim. C	Q'ty/Reel
2.30±0.10	1.40±0.10	0.6±0.10	4000

Unit: mm

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.