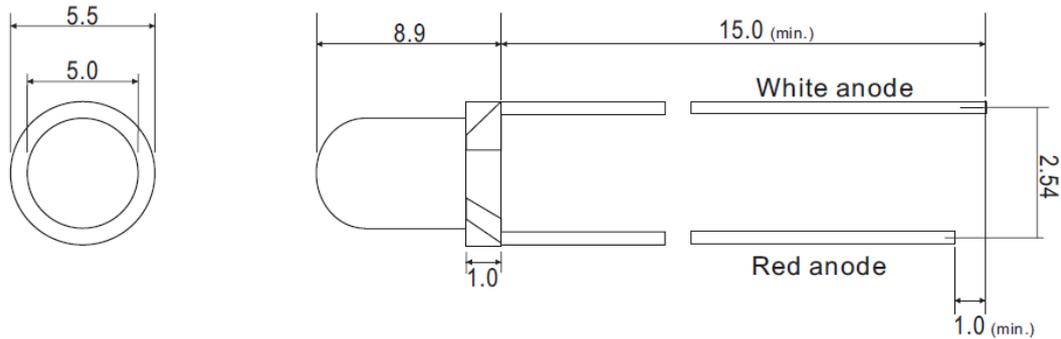


## Duo color LED, round, 5mm, 2 pins, non-polarity



ø5mm bi-color LED (Non-polarity)

**Notes:**

The tolerance is  $\pm 0.25\text{mm}$ .

**Features:**

- 1) Chip Material: AlGaInP & InGaN
- 2) Lens Color: Water Clear
- 3) Source Color: Red & White
- 4) Pb free
- 5) The product itself will remain within RoHS compliant version.

# Datasheet

Item no. 1567731

V1\_07272018\_01\_en

### Absolute Maximum Ratings at Ta=25°C: ( Red )

Parameter	Symbol	Maximum	Unit
Power Dissipation	Pd	70	mW
Peak Forward Current (Duty 1/10 @ 1KHz)	I <sub>FP</sub>	40-100	mA
Forward Current	I <sub>F</sub>	20	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature Range	Topr	-25°C to +80°C	
Storage Temperature Range	Tstg	-40°C to +100°C	
Lead Soldering Temperature [2.0mm from body]	Tsol	Reflow Soldering: 260°C for 10 sec. Hand Soldering: 350°C for 3 sec.	

### Electrical / Optical Characteristics at Ta=25°C: ( Red )

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	890	950	1020	mcd
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20mA	620	-	630	nm
Viewing Angle	2 θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	30	-	deg
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	1.9	2.0	2.2	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	<10	uA

Notes:

- 1) Tolerance of Luminous Intensity ±10%.
- 2) Tolerance of Forward Voltage ±0.1V.

# Datasheet

Item no. 1567731

V1\_07272018\_01\_en

## Absolute Maximum Ratings at Ta=25°C: ( White )

Parameter	Symbol	Maximum	Unit
Power Dissipation	Pd	100	mW
Peak Forward Current (Duty 1/10 @ 1KHz)	I <sub>FP</sub>	120	mA
Forward Current	I <sub>F</sub>	30	mA
Electrostatic Discharge (HBM)	ESD	2000	V
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature Range	T <sub>opr</sub>	-25°C to +80°C	
Storage Temperature Range	T <sub>stg</sub>	-40°C to +100°C	
Lead Soldering Temperature [2.0mm from body]	T <sub>sol</sub>	Reflow Soldering: 260°C for 10 sec. Hand Soldering: 350°C for 3 sec.	

## Electrical / Optical Characteristics at Ta=25°C: ( White )

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	1950	2000	2230	mcd
Correlated Color Temperature	CCT	I <sub>F</sub> =20mA	6000	6500	7000	K
Viewing Angle	2 θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	18	-	deg
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	3.0	3.3	3.6	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	<10	uA

### Notes:

- 1) Tolerance of Luminous Intensity ±10%.
- 2) Tolerance of Forward Voltage ±0.1V.

# Datasheet

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**Reliability test items and conditions:**

The reliability of products shall be satisfied with items listed below.

Confidence level: 97%

LTPD: 3%

No	Item	Test Conditions	Test Hours / Cycle	Sample Size	Failure Judgment Criteria	Ac/ Re
1	Solder Heat	TEMP: 260°C ± 5°C	10 SEC	76 PCS	$I_v \leq I_{vt} \cdot 0.5$ or $V_f \geq U$ or $V_f \leq L$	0/1
2	Temperature Cycle	H : +100°C 15min $\downarrow$ 5 min L : -40°C 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H : +100°C 5min $\downarrow$ 10 sec L : -40°C 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP: 100°C	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP: -40°C	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP: 25°C, I <sub>r</sub> =20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85°C / 85% RH	1000 HRS	76 PCS		0/1

**Notes:**

I<sub>vt</sub>: To test I<sub>v</sub> value of the chip before the reliability test

I<sub>v</sub>: The test value of the chip that has completed the reliability test

U: Upper Specification Limit

L: Lower Specification Limit