

# Universal LED Lamp Kit Series 306 pcs

## Description

- LED Kit contains Multi-voltage DC3-15 V LEDs, mounting clips and heat shrink tubes
- 306 pcs are supplied in a storage box for easy storage
- Wide input voltage range (3-15 V)
- With built-in resistor, direct use
- Cost effective (save space and resistor cost)
- Supplied with accessories, user-friendly
- Widely applied to project design, Arduino/Pi Pico/Steam kit, TTL/Cmos compatible applications



## Features

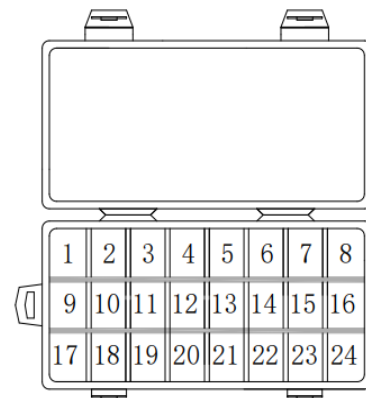
- 3 mm/5 mm/8 mm round standard 30° directivity
- Red/Yellow/Blue/Pure Green/Warm White/Cool White
- Color transparent type
- Single part clips for LED mounting
- Fitted with heat shrink tubing

360 pcs/Box (Dimensions: 195 x 130 x 36 mm)



## Kit Contents

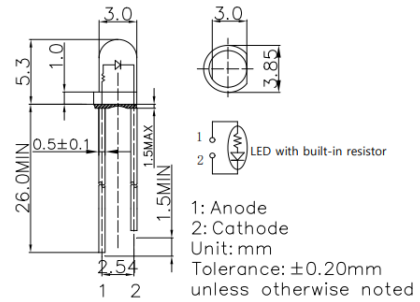
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# Data Sheet

## Single Color Multi-Voltage LED 3 mm Round LED

This LED builds with internal resistor to operate with wide operation voltage of DC3-15 V.



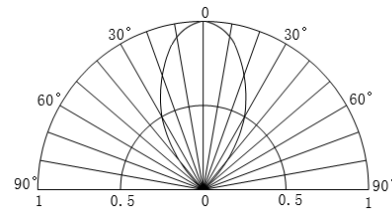
### Features

- Wide Input Voltage
- Cost Saving and Space Saving
- Color Transparent Type
- Single Color

### Applications

- Toys/Game/Audio
- TTL/Cmos Compatible
- Arduino/Pi Pico/Steam Kit
- Other Electronics Products

### Directivity

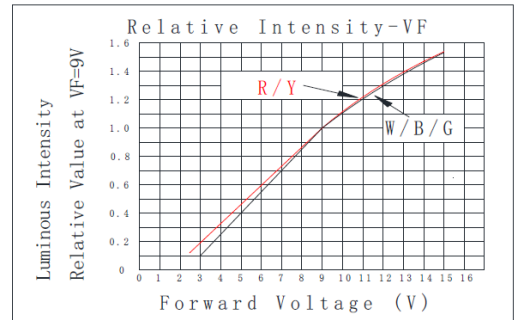


### Technical Data

Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
DC Forward Voltage	V <sub>F</sub>	15	V
Reverse Voltage	V <sub>R</sub>	12	V
Power Dissipation	P <sub>D</sub>	190	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	260 °C /5 sec	-

### Optical Characteristic Curves



### Electrical-Optical Characteristics (Ta=25 °C)

3 mm Multi-Voltage LED						
Light Color	Red	Yellow	Blue	Pure Green	Warm White	Cool White
Lens Color	Red Transparent	Yellow Transparent	Blue Transparent	Green Transparent	Water Clear	Water Clear
Wavelength*1/Color Temperature*2	620-630 nm	585-595 nm	465-475 nm	520-530 nm	2700-3300 K	8500-18000 K
Luminous Intensity (typ.)*3	2180 mcd	2180 mcd	1560 mcd	4200 mcd	4200 mcd	4200 mcd
Forward Voltage (typ.)	9 V	9 V	9 V	9 V	9 V	9 V
Forward Current (typ.)	8 mA	8 mA	7.5 mA	7.5 mA	7.5 mA	7.5 mA
Viewing Angle (typ.)	30°	30°	30°	30°	30°	30°
Quantity(pcs)/Box	12	12	12	12	12	12

\*1 Tolerance of measurements of dominant wavelength is ±1 nm

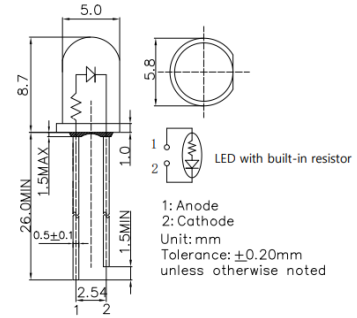
\*2 Tolerance of measurements of color temperature is ±10 %

\*3 Tolerance of measurements of luminous intensity is ±15 %

# Data Sheet

## Single Color Multi-Voltage LED 5 mm Round LED

This LED builds with internal resistor to operate with wide operation voltage of DC3-15 V.



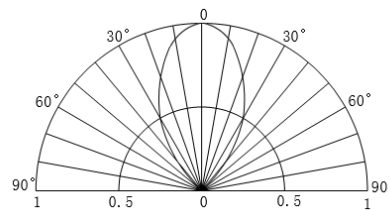
### Features

- Wide Input Voltage
- Cost Saving and Space Saving
- Color Transparent Type
- Single Color

### Applications

- Toys/Game/Audio
- TTL/Cmos Compatible
- Arduino/Pi Pico/Steam Kit
- Other Electronics Products

### Directivity

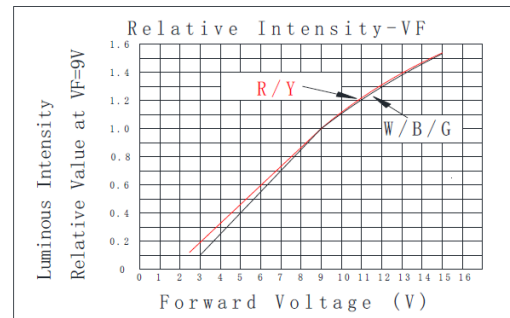


### Technical Data

Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
DC Forward Voltage	V <sub>F</sub>	15	V
Reverse Voltage	V <sub>R</sub>	12	V
Power Dissipation	P <sub>D</sub>	190	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	260 °C /5 sec	-

### Optical Characteristic Curves



Electrical-Optical Characteristics (Ta=25 °C)

5 mm Multi-Voltage LED	Red	Yellow	Blue	Pure Green	Warm White	Cool White
Light Color	Red	Yellow	Blue	Pure Green	Warm White	Cool White
Lens Color	Red Transparent	Yellow Transparent	Blue Transparent	Green Transparent	Water Clear	Water Clear
Wavelength*1/Color Temperature*2	620-630 nm	585-595 nm	465-475 nm	520-530 nm	2700-3300 K	8500-18000 K
Luminous Intensity (typ.)*3	3000 mcd	3000 mcd	2180 mcd	5800 mcd	5800 mcd	5800 mcd
Forward Voltage (typ.)	9 V	9 V	9 V	9 V	9 V	9 V
Forward Current (typ.)	8 mA	8 mA	7.5 mA	7.5 mA	7.5 mA	7.5 mA
Viewing Angle (typ.)	30°	30°	30°	30°	30°	30°
Quantity(pcs)/Box	12	12	12	12	12	12

\*1 Tolerance of measurements of dominant wavelength is ±1 nm

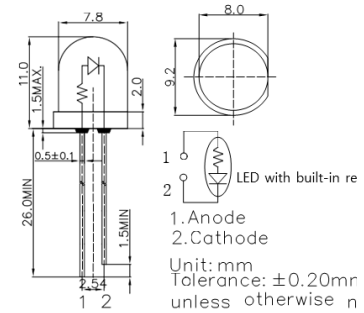
\*2 Tolerance of measurements of color temperature is ±10 %

\*3 Tolerance of measurements of luminous intensity is ±15 %

# Data Sheet

## Single Color Multi-Voltage LED 8 mm Round LED

This LED builds with internal resistor to operate with wide operation voltage of DC3-15 V.



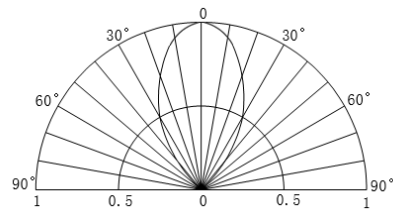
### Features

- Wide Input Voltage
- Cost Saving and Space Saving
- Color Transparent Type
- Single Color

### Applications

- Toys/Game/Audio
- TTL/Cmos Compatible
- Arduino/Pi Pico/Steam Kit
- Other Electronics Products

### Directivity

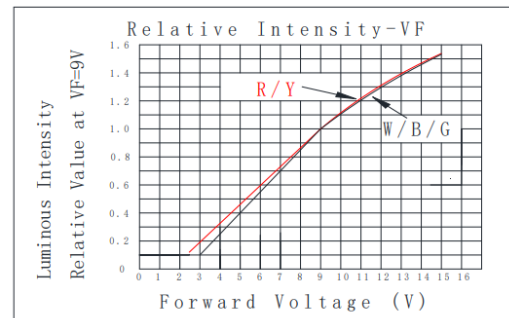


### Technical Data

Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
DC Forward Voltage	V <sub>F</sub>	15	V
Reverse Voltage	V <sub>R</sub>	12	V
Power Dissipation	P <sub>D</sub>	190	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	260 °C /5 sec	-

### Optical Characteristic Curves



### Electrical-Optical Characteristics (Ta=25 °C)

8 mm Multi-Voltage LED						
Light Color	Red	Yellow	Blue	Pure Green	Warm White	Cool White
Lens Color	Red Transparent	Yellow Transparent	Blue Transparent	Green Transparent	Water Clear	Water Clear
Wavelength*1/Color Temperature*2	620-630 nm	585-595 nm	465-475 nm	520-530 nm	2700-3300 K	8500-18000 K
Luminous Intensity (typ.)*3	4200 mcd	4200 mcd	2500 mcd	7000 mcd	7000 mcd	7000 mcd
Forward Voltage (typ.)	9 V	9 V	9 V	9 V	9 V	9 V
Forward Current (typ.)	8 mA	8 mA	7.5 mA	7.5 mA	7.5 mA	7.5 mA
Viewing Angle (typ.)	30°	30°	30°	30°	30°	30°
Quantity(pcs)/Box	6	6	6	6	6	6

\*1 Tolerance of measurements of dominant wavelength is ±1 nm

\*2 Tolerance of measurements of color temperature is ±10 %

\*3 Tolerance of measurements of luminous intensity is ±15 %

# Data Sheet

## LED Mounting Clip

Material: NYLON66

Color: Black

Fireproofing grade: 94V-2

### Product Information & Outline Dimension:

Item	Product Picture	Outline Dimension
3 mm LED Mounting Clip		 <p>Unite: mm Tolerance: ±0.30mm unless otherwise ntoed</p>
5 mm LED Mounting Clip		 <p>Unite: mm Tolerance: ±0.30mm unless otherwise ntoed</p>
8 mm LED Mounting Clip		 <p>Unite: mm Tolerance: ±0.30mm unless otherwise ntoed</p>

# Data Sheet

## Heat Shrink Tubing (Single Wall Tube)

Heat shrink tubing is a flexible, flame retardant and halogen-free polyolefin tubing used for electrical insulation. Heat shrink is 600 V and is free of Lead, Cadmium, Mercury, Hexavalent Chromium, Polybrominated biphenyl and Polybrominated diphenyl ethers.

It has an operating temperature of 125 °C and a shrink temperature of 90 °C. Can be used in any enclosed area where a flame-retardant, halogen-free environment is required.

### Features

- Flame retardant
- Halogen free

### Applications

- Electrical insulation
- Wire protection
- Other fields requiring protection in harsh environments

### Technical Information

Material: Polyolefin heat shrink

Color: Red, Yellow, Blue, Green, White, Black

Technical data		Units	Value
Radial shrinking ratios		%	≥50
Longitudinal change		%	≥1±5
Tensile strength		MPa	≥10.4
Elongation break		%	≥200
Aging in circular-air oven		°C	158.0 °C±1.0 °C, 168 hrs
After aging	Tensile strength	MPa	≥7.3
	Elongation at break	%	≥100
Volume resistivity		Ω.cm	≥1014
Dielectric strength at 1 min, AC2500 V		-	No breakdown
Heat shock		-	No cracking
Flammability		-	VW-1
Concentricity		%	≥70

Heat Shrink Tubing	Red	Yellow	Blue	Green	White	Black
Color	Red	Yellow	Blue	Green	White	Black
Size	Φ1.5x20±3 mm	Φ1.5x20±3 mm	Φ1.5x20±3 mm	Φ1.5x20±3 mm	Φ1.5x20±3 mm	Φ1.5x20±3 mm
Quantity(pcs)/Box	24	12	12	12	12	24