



**EXCEED PERSEVERANCE ELECTRONIC INDUSTRY CO., LTD.**

**深圳市超毅光电子有限公司**

**Φ 10.0mm Ultra Brightness Type LEDS**

**Part Number:**

RL81-PR343

RL81-UY543

RL81-CB744D

RL81-GH744D

RL81-WH744D

RL81-UV744D

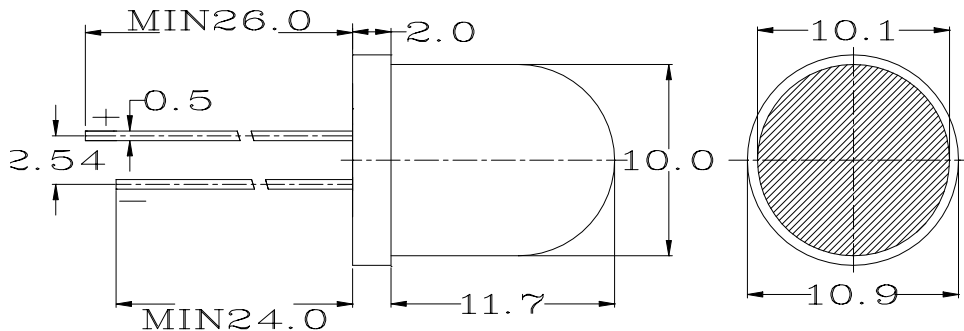
**Features**

1. LOW POWER CONSUMPTION.
2. RELIABLE AND RUGGED.
3. EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
4. SUITABLE FOR LEVEL INDICATOR.
5. I.C COMPATIBLE.
6. LONG LIFE-SOLIDSTATE RELIABILTY.

**Notes:**

1. All dimensions are in millimeters (inches)
2. Tolerance is  $\pm 0.25(0.01'' )$  unless otherwise niter
3. Lead spacing is measured where the lead emerge package
4. Specifications are subject to change without notice

**Package Dimensions**



**Selection Guide**

Part NO.	Lens Type	Chip Material	IV (mcd)		Viewing Angle
			@10mA *20mA		
			Min.	Typ.	2 θ 1/2
RL81-PR343	Ultra Red Water Clear	GaAlAs/GaAs	2500	3500	10°
RL81-UY543	Ultra Yellow Water Clear	InGaAlP/GaAs	3500	4500	10°
RL81-CB744D	Ultra Blue Water Clear	InGaN/GaN	5000	7500	10°
RL81-GH744D	Ultra Green Water Clear	InGaN/GaN	5000	7500	10°
RL81-WH744D	Ultra White Water Clear	InGaN/GaN	6500	9500	10°
RL81-UV744D	Ultra Purple Water Clear	InGaN/GaN	4500	6500	10°

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

2. \*Luminous intensity with measured at 20mA.



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**Electrical/Optical characteristics at TA=25°C.**

Symbol	Parameter	Device	Type.	Max.	Units	Test Conditions
λ peak	Peak Wavelength	Ultra Red Water Clear	660		nm	IF-20mA
		Ultra Yellow Water Clear	590			
		Ultra Blue Water65 Clear	475			
		Ultra Green Water Clear	525			
		Ultra White Water Clear	/			
		Ultra Purple Water Clear	430			
λ D	Dominate Wavelength	Ultra Red Water Clear	640		nm	IF-20mA
		Ultra Yellow Water Clear	585			
		Ultra Blue Water65 Clear	465			
		Ultra Green Water Clear	505			
		Ultra White Water Clear	/			
		Ultra Purple Water Clear	400			
Δ λ 1/2	Spectral Line Halfwit	Ultra Red Water Clear	45		nm	IF-20mA
		Ultra Yellow Water Clear	35			
		Ultra Blue Water65 Clear	25			
		Ultra Green Water Clear	25			
		Ultra White Water Clear	25			
		Ultra Purple Water Clear	25			
C	Capacitance	Ultra Red Water Clear	45		pF	VF=0V; f=1MHZ
		Ultra Yellow Water Clear	20			
		Ultra Blue Water65 Clear	65			
		Ultra Green Water Clear	65			
		Ultra White Water Clear	65			
		Ultra Purple Water Clear	65			
VF	Forward Voltage	Ultra Red Water Clear	1.8	2.4	V	IF-20mA
		Ultra Yellow Water Clear	2.1	2.8		
		Ultra Blue Water65 Clear	2.8	4.0		
		Ultra Green Water Clear	2.8	4.0		
		Ultra White Water Clear	2.8	4.0		
		Ultra Purple Water Clear	2.8	4.0		
IR	Reverse Current	All		10	uA	VR=5V

**Absolute Maximum Ratings at TA=25°C.**

Parameter	Ultra Red Water Clear	Ultra Yellow Water Clear	Ultra Blue Water65 Clea	Ultra Green Water Clear	Ultra White Water Clear	Ultra Purple Water Clear	Units
Power dissipation	110	100	170	170	170	170	mW
DC Forward Current	25	25	25	25	25	25	mA
Peak Forward Current	200	160	100	100	100	100	mA
Reverse Voltage	5	5	5	5	5	5	V

**NOTES:**

1. Operating temperature: 40°C. TO 80°C.
2. Lead soldering: 260°C for 5 seconds.