



**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

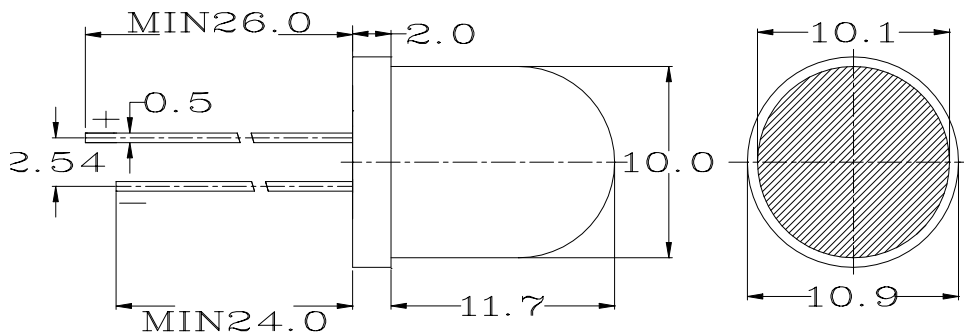
**Features**

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
$\lambda$ peak	Peak Wavelength	Ultra Red Water Clear Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	660 590 475 525 / 430		nm	IF=20mA
$\lambda$ D	Dominate Wavelength	Ultra Red Water Clear Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	640 585 465 505 / 400		nm	IF=20mA
$\Delta \lambda$ 1/2	Spectral Line Halfwit	Ultra Red Water Clear Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	45 35 25 25 25 25		nm	IF=20mA
C	Capacitance	Ultra Red Water Clear Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	45 20 65 65 65 65		pF	VF=0V; f=1MHZ
VF	Forward Voltage	Ultra Red Water Clear Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	1.8 2.1 2.8 2.8 2.8 2.8	2.4 2.8 4.0 4.0 4.0 4.0	V	IF=20mA
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.