



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-UR543

RL81-UY543

RL81-CB744D

RL81-GH744D

RL81-WH744D

RL81-UV744D

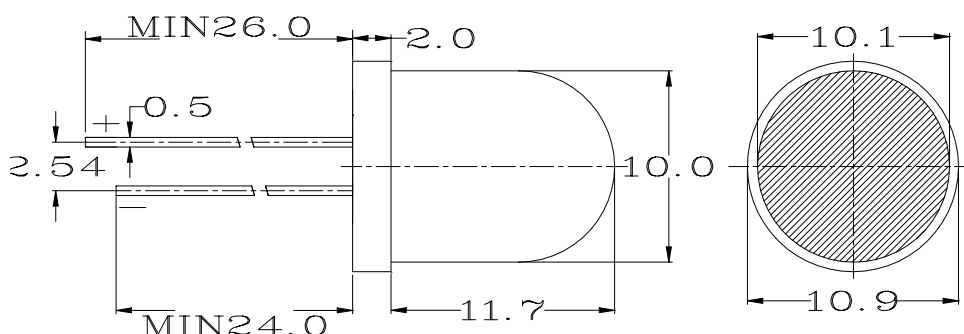
Features

- 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.Speciflcations are subject to change without notice

Package Dimensions



Selection Guide

Part NO.	Lens Type	Chip			
		Material	IV (mcd) @10mA *20mA		Viewing Angle
			Min.	Typ.	
RL81-UR543	Ultra Red Water Clear	GaAlAs/GaAs	2000	3000	25°
RL81-UY543	Ultra Yellow Water Clear	InGaAlP/GaAs	2000	3000	25°
RL81-CB744D	Ultra Blue Water Clear	InGaN/GaN	3500	5500	25°
RL81-GH744D	Ultra Green Water Clear	InGaN/GaN	6000	8000	25°
RL81-WH744D	Ultra White Water Clear	InGaN/GaN	6000	8000	25°
RL81-UV744D	Ultra Purple Water Clear	InGaN/GaN	200	300	25°

1. $\theta 1/2$ 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 Ultra Yellow Water Clear Ultra Blue Water65 Clear Ultra Green Water Clear Ultra White Water Clear Ultra Purple Water Clear	645 590 475 525 / 430		nm	IF=20mA
λ_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	625 585 465 505 / 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.