



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

**深圳市超毅光电子有限公司**

**Φ 10.0mm ROUND TYPE WITH FLANGE LEDS.**

**Part Number:**

RL81-RD313  
RL81-HY213

RL81-SR113  
RL81-YG413

RL81-HO313  
RL81-SO423

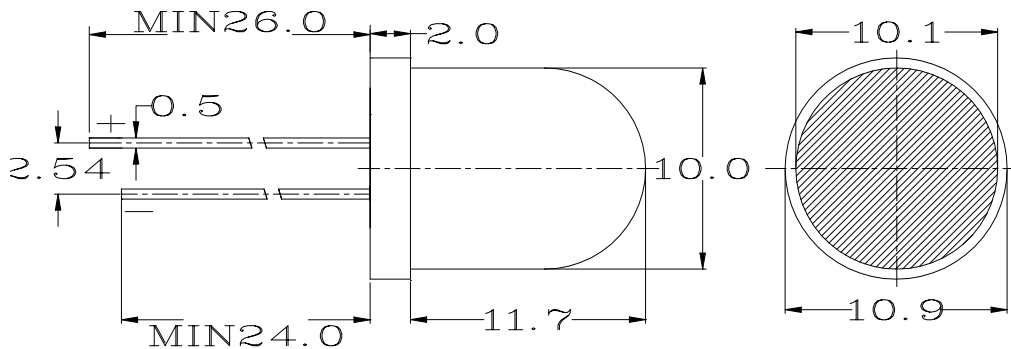
**Features**

- 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)		Viewing Angle
			@10mA	*20mA	
			Min.	Typ.	2 θ 1/2
RL81-RD313	Bright Red Diffused	GaP/GaP	2.0	3.1	30°
RL81-SR113	Super Red Diffused	GaAlAs/GaAs	60	100	30°
RL81-HO313	Orange Red Diffused	GaAsP/GaP	38	65	30°
RL81-HY213	Yellow Diffused	GaAsP/GaP	28	48	30°
RL81-YG413	Yellow Green Diffused	GaP/GaP	30	52	30°
RL81-SO423	Super Amber Transparent	GaAsP/GaP	38	66	15°

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2the 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	Bright Red Super Red Orange Red Yellow Yellow Green Super Amber	700 660 630 585 570 610		nm	IF=20mA
$\lambda_D$	Dominate Wavelength	Bright Red Super Red Orange Red Yellow Yellow Green Super Amber	690 640 610 580 560 600		nm	IF=20mA
$\Delta \lambda_{1/2}$	Spectral Line Halfwit	Bright Red Super Red Orange Red Yellow Yellow Green Super Amber	45 20 45 35 30 45		nm	IF=20mA
C	Capacitance	Bright Red Super Red Orange Red Yellow Yellow Green Super Amber	40 45 15 20 15 15		pF	VF=0V; f=1MHZ
VF	Forward Voltage	Bright Red Super Red Orange Red Yellow Yellow Green Super Amber	2.1 1.8 2.0 2.0 2.1 2.0	2.8 2.4 2.8 2.8 2.8 2.8	V	IF=20mA
IR	Reverse Current	All		10	uA	VR=5V

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

Parameter	Bright Red	Super Red	Orange Red	Yellow	Yellow Green	Super Amber	Units
Power dissipation	45	110	100	85	100	100	mW
DC Forward Current	25	25	25	25	25	25	mA
Peak Forward Current	50	200	160	160	160	160	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.