



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

**深圳市超毅光电子有限公司**

**0603 SMD**

**Part Number:**

RL-S190SC	RL-S190YC	RL-S190OC	RL-S190GC
RL-S190BC	RL-S190WC	RL-S190PGC	

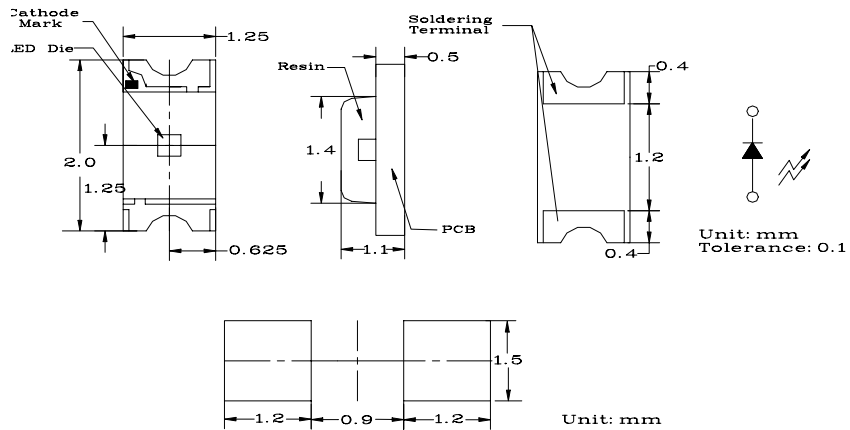
**Features**

- 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			
RL-S190SC	Super Red	AlGaAs	14	20	140°
RL-S190YC	Super Yellow	GaAsP	6	14	140°
RL-S190OC	Super Orange	GaAsP	5.5	86	140°
RL-S190GC	Super Yellow Green	GaP	14.5	198	140°
RL-S190BC	Ultra Blue	InGaN	60	110	140°
RL-S190WC	Ultra White	InGaN	200	273	140°
RL-S190PGC	Ultra Pure Green	InGaN	60	135	140°

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
λ peak	Peak Wavelength	Super Red	660		nm	IF-20mA
		Super Yellow	585			
		Super Orange	630			
		Super Yellow Green	570			
		Ultra Blue	475			
		Ultra White	/			
		Ultra Pure Green	525			
λ D	Dominate Wavelength	Super Red	643		nm	IF-20mA
		Super Yellow	583			
		Super Orange	610			
		Super Yellow Green	568			
		Ultra Blue	465			
		Ultra White	/			
		Ultra Pure Green	515			
Δ λ 1/2	Spectral Line Halfwit	Super Red	20		nm	IF-20mA
		Super Yellow	30			
		Super Orange	15			
		Super Yellow Green	15			
		Ultra Blue	25			
		Ultra White	25			
		Ultra Pure Green	25			
C	Capacitance	Super Red	45		pF	VF=0V; f=1MHZ
		Super Yellow	20			
		Super Orange	15			
		Super Yellow Green	15			
		Ultra Blue	65			
		Ultra White	65			
		Ultra Pure Green	65			
VF	Forward Voltage	Super Red	1.85	2.7	V	IF-20mA
		Super Yellow	2.15	2.7		
		Super Orange	2.15	2.7		
		Super Yellow Green	2.3	2.7		
		Ultra Blue	3.0	4.2		
		Ultra White	3.0	4.2		
		Ultra Pure Green	3.0	4.2		
IR	Reverse Current	All		10	uA	VR=5V

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

Parameter	Super Red	Super Yellow	Super Orange	Super Yellow Green	Ultra Blue	Ultra White	Ultra PureGreen	Units
Power dissipation	110	85	100	100	170	170	170	mW
DC Forward Current	25	25	25	25	25	25	25	mA
Peak Forward Current	200	160	160	160	100	100	100	mA
Reverse Voltage	5	5	5	5	5	5	5	V

**NOTES:**

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