



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-S190BC

RL-S190YC
RL-S190WC

RL-S190OC
RL-S190PGC

RL-S190GC

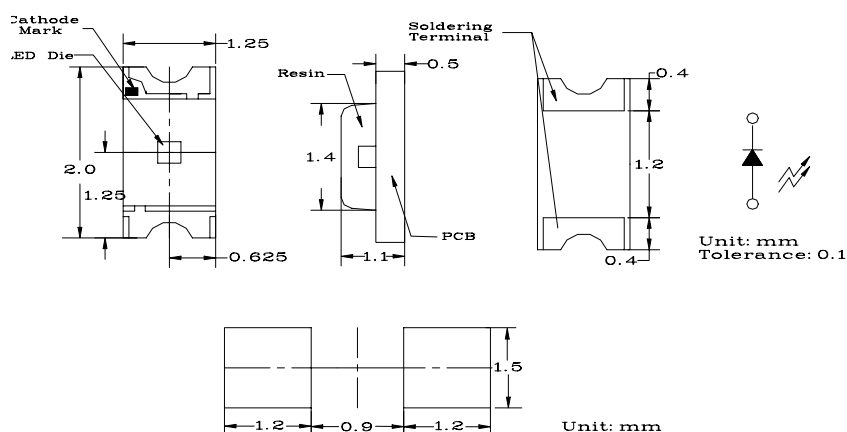
Features

- 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 RELIABILITY.

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 Super Yellow Super Orange Super Yellow Green Ultra Blue Ultra White Ultra Pure Green	660 585 630 570 475 / 525		nm	IF-20mA
λ_D	Dominate Wavelength	Super Red Super Yellow Super Orange Super Yellow Green Ultra Blue Ultra White Ultra Pure Green	643 583 610 568 465 / 515		nm	IF-20mA
$\Delta \lambda_{1/2}$	Spectral Line Halfwit	Super Red Super Yellow Super Orange Super Yellow Green Ultra Blue Ultra White Ultra Pure Green	20 30 15 15 25 25 25		nm	IF-20mA
C	Capacitance	Super Red Super Yellow Super Orange Super Yellow Green Ultra Blue Ultra White Ultra Pure Green	45 20 15 15 65 65 65		pF	VF=0V; f=1MHZ
VF	Forward Voltage	Super Red Super Yellow Super Orange Super Yellow Green Ultra Blue Ultra White Ultra Pure Green	1.85 2.15 2.15 2.3 3.0 3.0 3.0	2.7 2.7 2.7 2.7 4.2 4.2 4.2	V	IF-20mA
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.