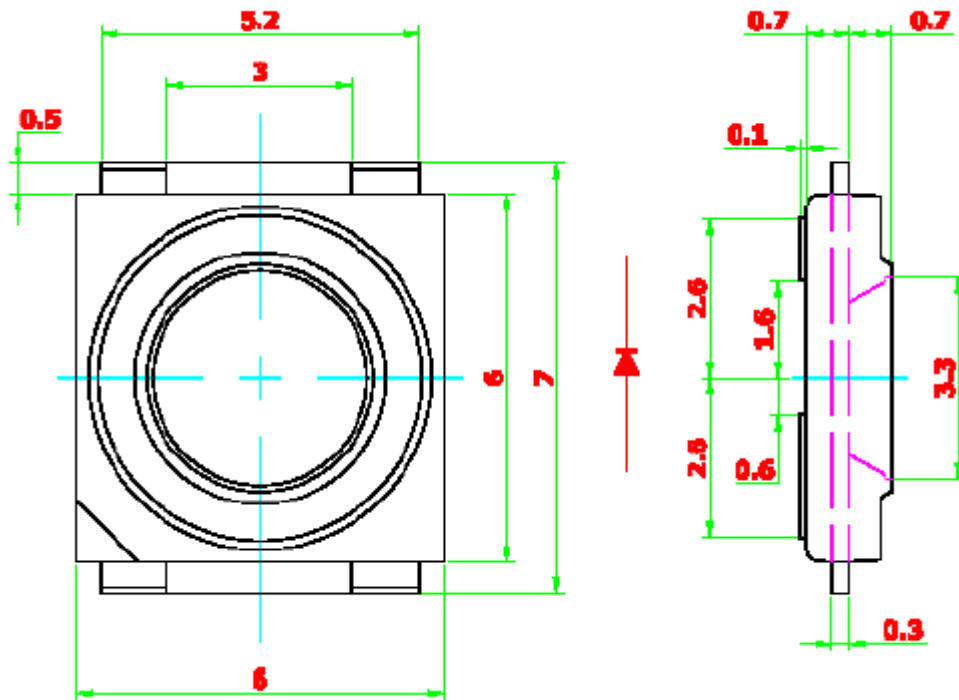




Nova LED 400 - AllnGaP



- Super high brightness surface mount LED.
- High flux output.
- Compact package outline (LxW) of 6.0 x 6.0 mm. Ultra low height profile – 1.5 mm.
- Designed for high current drive.
- Low thermal resistance; $R_{th(j-s)} = 20 \text{ K/W}$.
- Compatible to IR reflow soldering.



Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	400	mA
Peak pulse current. (tp < 10 μsec, D = 0.1)	500	mA
Reverse voltage.	12	V
ESD Threshold (HBM)	2	kV
LED junction temperature.	125	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
Power dissipation	1200	mW

Optical Characteristics at Ta=25°C, If=400mA.

Part Number	Color	λ _{dom} (nm)	Total Flux @ If=400mA		IV @ If=400mA	Viewing Angle
			Min (lm)	Typ. (lm)	Typ. (mcd)	
BL-PPR-MSS-C10 <ul style="list-style-type: none"> • BIN AA • BIN AB 	Red	625	30	32	8500	120

IV Bins	Intensity @ If=400mA (mcd)	
	Min	Max
AA	7150	9000
AB	9000	11250
AC	11250	14000

- Luminous intensity is measured with an accuracy of ±11%.
- Wavelength binning is carried for all units as per the wavelength binning table. Only one wavelength group is allowed for each reel.



Wavelength Grouping.

Color	Group	Wavelength distribution (nm)
BL-PPR; Red	Full	620 - 630
BL-PPY; Yellow	Full	585 - 597
	W	585 - 588
	X	588 - 591
	Y	591 - 594
	Z	594 - 597

Wavelength is measured with an accuracy of ± 1 nm.

Electrical Characteristics at Ta=25°C.

		Vf @ If=400mA		Vr @ Ir=100uA
Part Number	Color	Typ. (V)	Max. (V)	Min.(V)
BL-PPR-MSS-C10	Red	2.5	2.8	12
BL-PPY-MSS-C10	Yellow	2.5	2.8	12

1. An optional Vf binning is also available upon request. Please request for special part number. Binning scheme is as per following table.

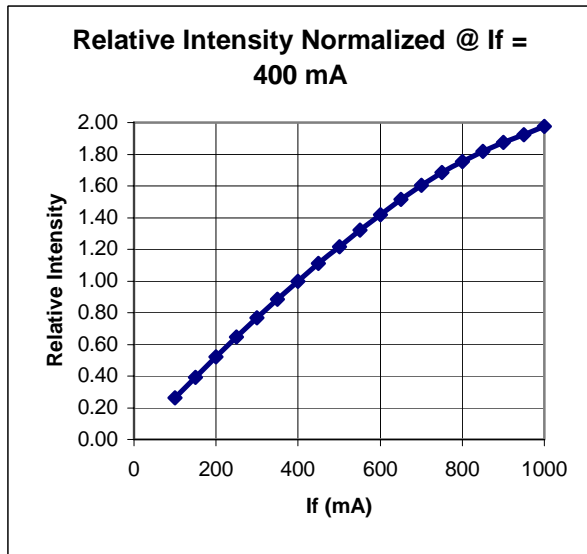
Vf Binning.

Vf Bin @ 400mA	Forward voltage (V)
Standard	2.2 ... 2.8
02	2.2 ... 2.5
03	2.5 ... 2.8

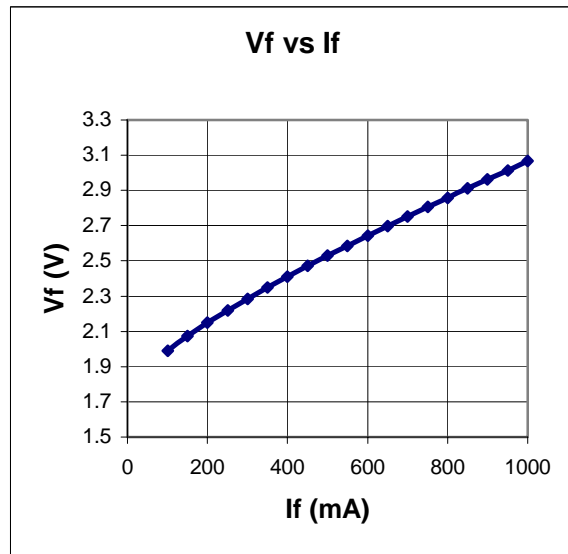
Forward voltage, Vf is measured with a current pulse of 1 ms and an accuracy of ± 0.1 V. Vf binning is provided as an option. Please request for special part numbers.



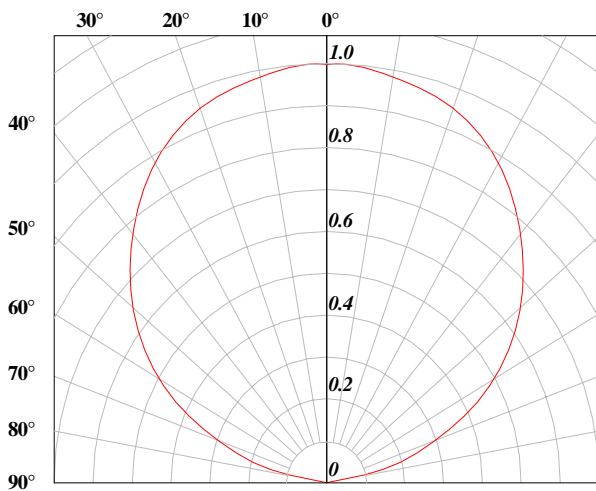
Intensity vs. Forward Current



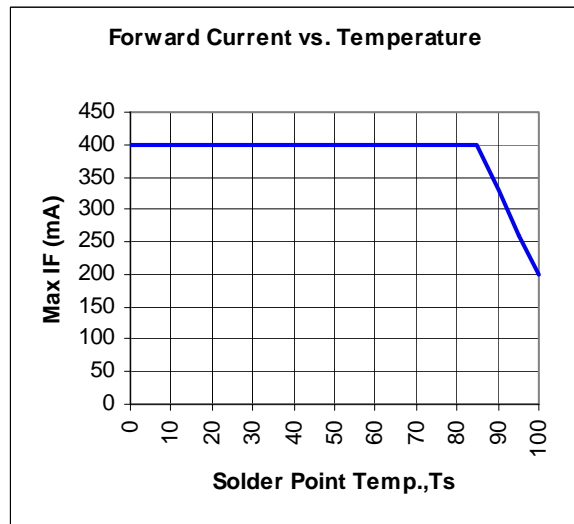
Forward Current vs Forward Voltage



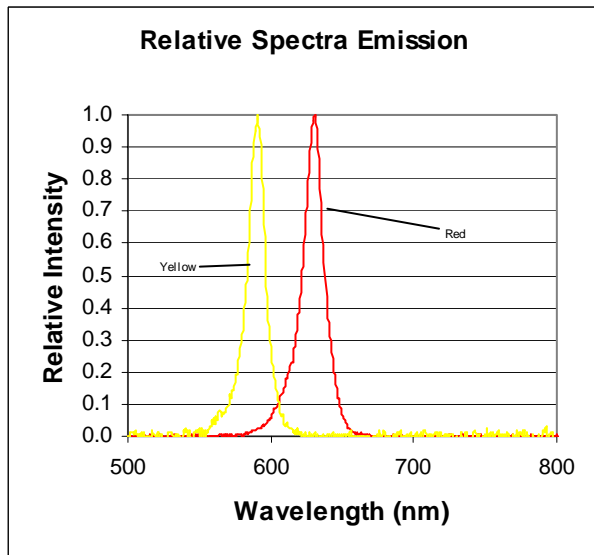
Radiation Pattern



Max Forward Current vs. Ambient Temperature.



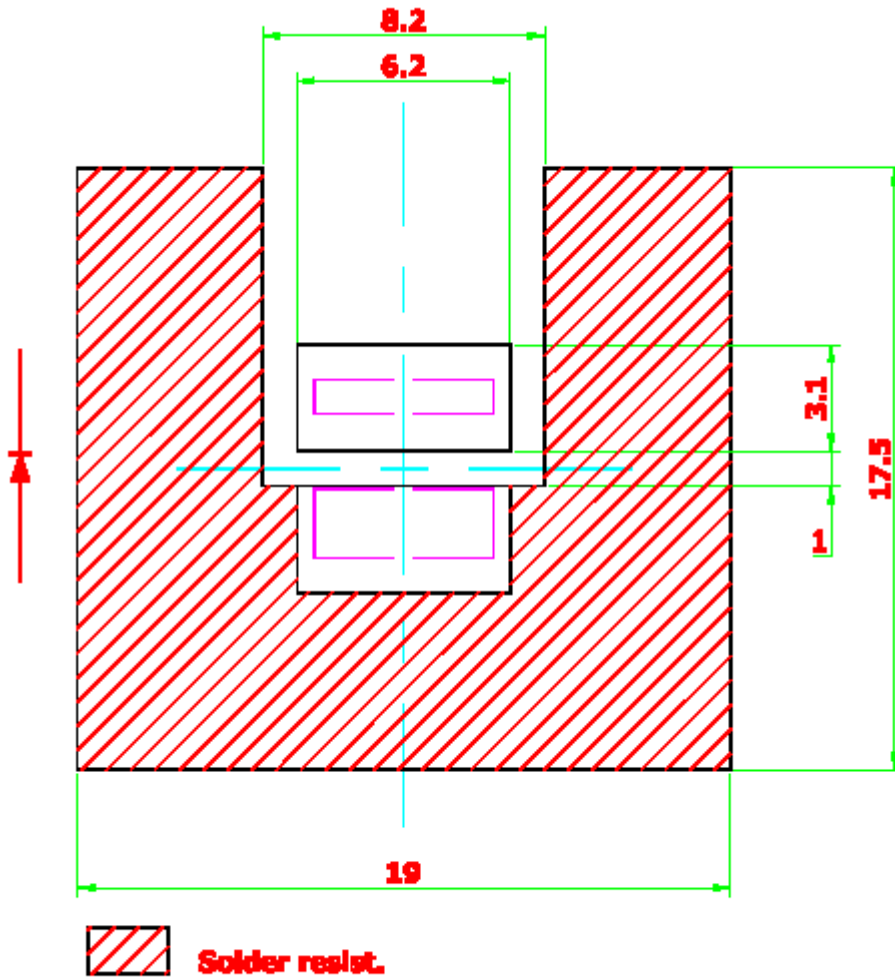
Color Spectrum.





Solder Pad Design.

Note : Unit to unit pitching must not be less than 25 mm. Metal core circuit board (MCPCB) is highly recommended for high density applications. Please consult sales and marketing for additional information.

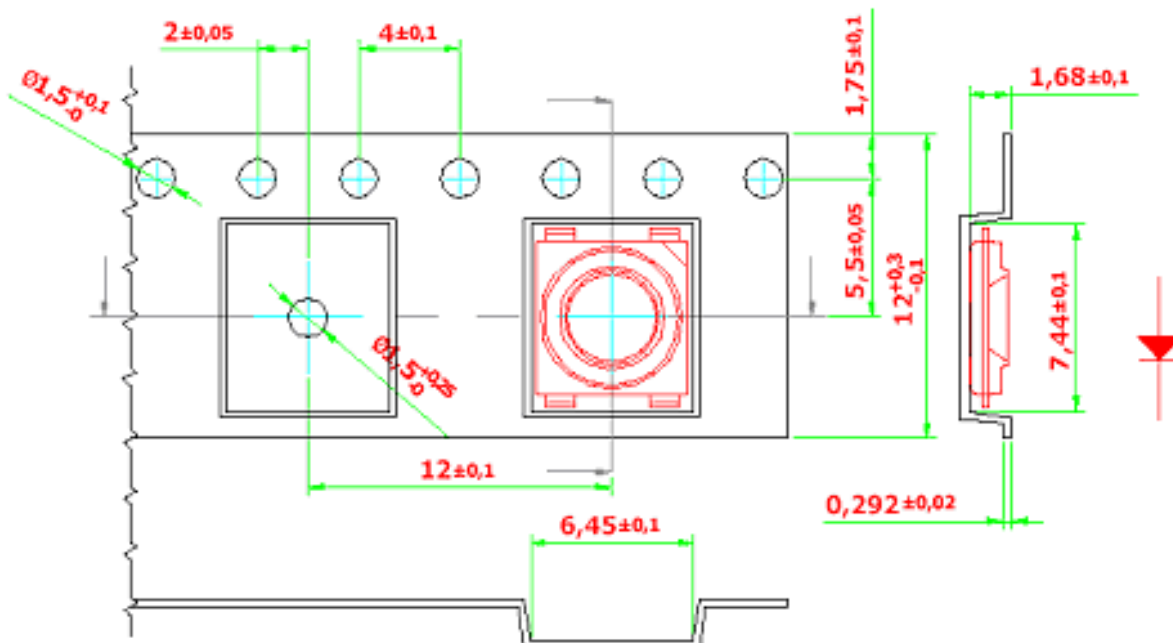




Taping And Orientation.

Reels come in quantity of 2000 units.

Reel diameters are 330 mm.





Recommended IR-Reflow Soldering Profile.

