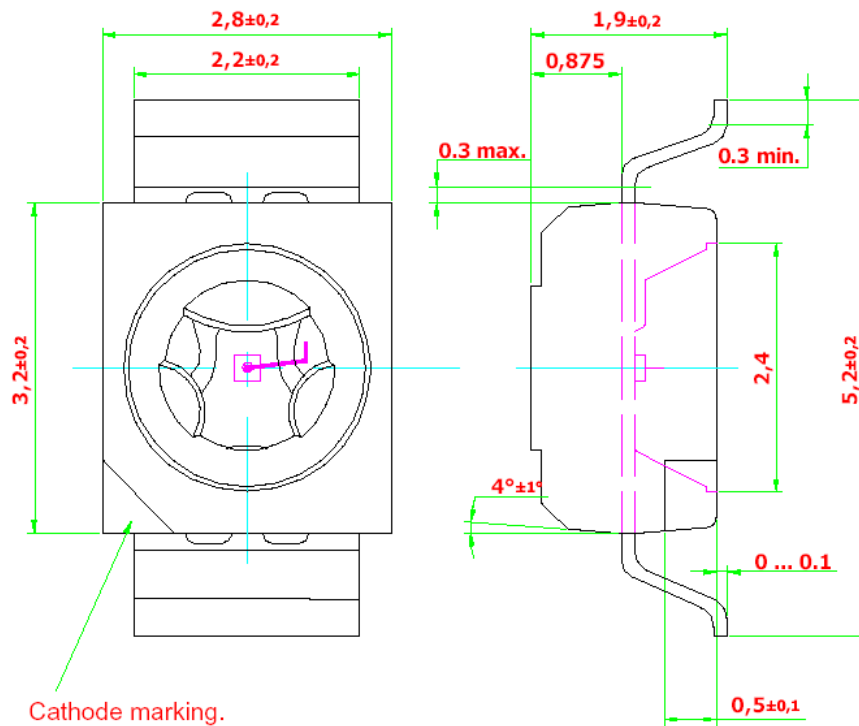




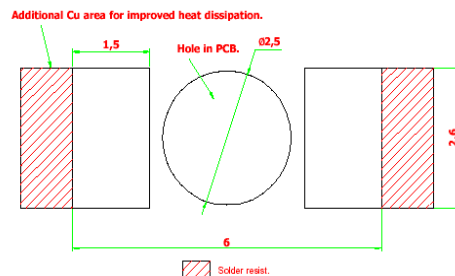
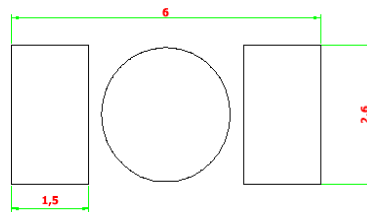
● Feature:

1. Surface mount LED.
2. 120° viewing angle.
3. Small package outline (LxWxH) of 3.2 x 2.8 x 1.8 mm.
4. Qualified according to JEDEC moisture sensitivity Level 2.
5. Compatible to both IR reflow soldering and TTW soldering.

● Package Dimension:



Recommended Solder Pad





● Optical Characteristics:

Part Number	Chip Technology / Color	Luminous Intensity @ If = 20mA Iv (mcd)
BL-PDR-GRS-C10 <ul style="list-style-type: none"> • BIN L1 • BIN L2 • BIN M1 • BIN M2 	GaP / Red, 625 nm	11.2 ... 28.5 11.2 ... 14.0 14.0 ... 18.0 18.0 ... 22.4 22.4 ... 28.5
BL-PDR-GRS-C20 <ul style="list-style-type: none"> • BIN M1 • BIN M2 • BIN N1 • BIN N2 		28.5 ... 71.5 28.5 ... 35.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5
BL-PDO-GRS-C10 <ul style="list-style-type: none"> • BIN L1 • BIN L2 • BIN M1 • BIN M2 	GaP / Orange, 605 nm	11.2 ... 28.5 11.2 ... 14.0 14.0 ... 18.0 18.0 ... 22.4 22.4 ... 28.5
BL-PDY-GRS-C10 <ul style="list-style-type: none"> • BIN L1 • BIN L2 • BIN M1 • BIN M2 		GaP / Yellow, 587 nm
BL-PDY-GRS-C20 <ul style="list-style-type: none"> • BIN M1 • BIN M2 • BIN N1 • BIN N2 	28.5 ... 71.5 28.5 ... 35.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5	
BL-PDG-GRS-C10 <ul style="list-style-type: none"> • BIN L1 • BIN L2 • BIN M1 • BIN M2 	GaP / Green, 570 nm	11.2 ... 28.5 11.2 ... 14.0 14.0 ... 18.0 18.0 ... 22.4 22.4 ... 28.5
BL-PDG-GRS-C20 <ul style="list-style-type: none"> • BIN M1 • BIN M2 • BIN N1 • BIN N2 		18.0 ... 45.0 18.0 ... 22.4 22.4 ... 28.5 28.5 ... 35.5 35.5 ... 45.0



Forward voltage @ $I_f=20$ mA.	Chip Type	Viewing angle at 50% I_v	Reverse current, I_R @ $V_R = 5V$, (max)
2.2 V (typ.); 2.6 V (max)	GaP	120°	100 μ A

NOTE:

1. Other luminous intensity groups are also available upon request.
2. Luminous intensity is measured with an accuracy of $\pm 11\%$.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
4. An optional V_f binning is also available upon request. Binning scheme is as per following table.

● **Absolute Maximum Ratings:**

Parameter	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current; ($t_p \leq 10 \mu s$, Duty cycle = 0.005)	500	mA
Reverse voltage.	5	V
LED junction temperature.	100	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
Power dissipation (at room temperature)	75	mW

● **V_f Binning:**

V_f Bin @ 20mA	Forward voltage (V)
01	1.55 ... 1.85
02	1.85 ... 2.15
03	2.15 ... 2.45
04	2.45 ... 2.60

Forward voltage, V_f is measured with an accuracy of ± 0.1 V.



● Wavelength Grouping:

Color	Group	Wavelength distribution (nm)
BL-PDR; Red	Full	620 – 635
BL-PDO; Orange	Full	600 – 612
	W	600 - 603
	X	603 - 606
	Y	606 - 609
	Z	609 - 612
BL-PDY; Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 594
BL-PDG; Green	Full	564.5 – 576.5
	W	564.5 – 567.5
	X	567.5 – 570.5
	Y	570.5 – 573.5
	Z	573.5 – 576.5

Wavelength is measured with an accuracy of ± 1 nm.

● Typical electro-optical characteristics curves:

Fig. 1 Relative luminous intensity vs. forward current.

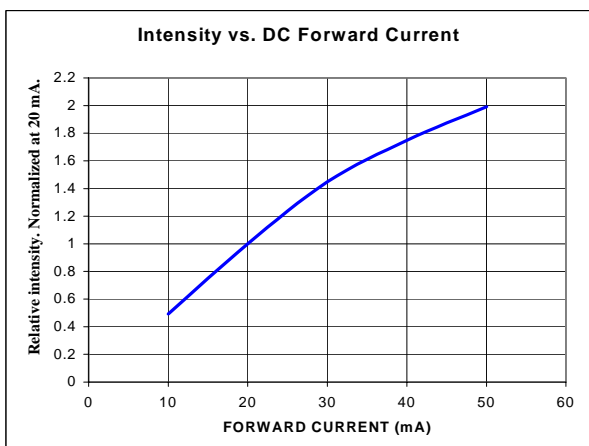


Fig. 2 Forward current vs. forward voltage.

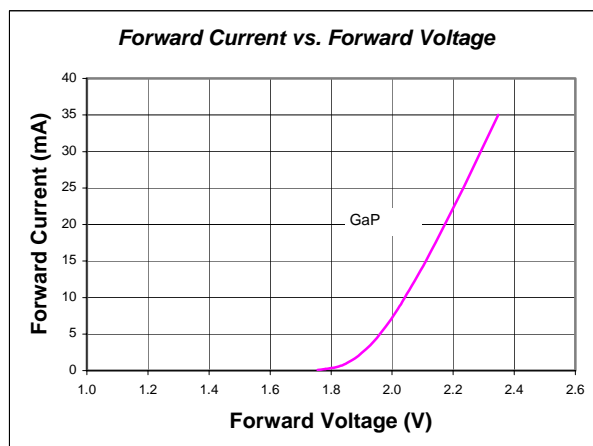




Fig. 3 Radiation pattern.

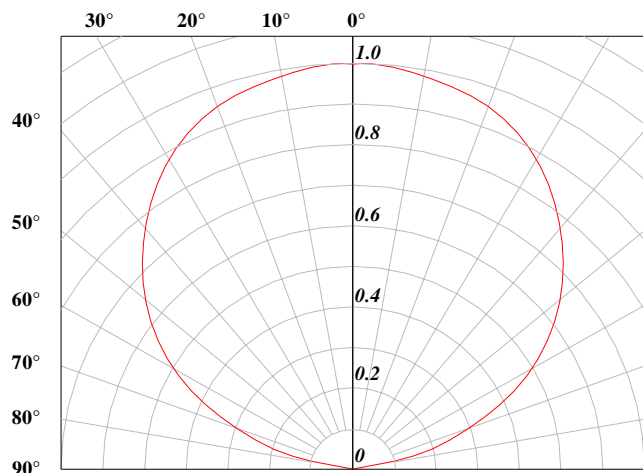


Fig. 4 Maximum forward current vs. temperature.

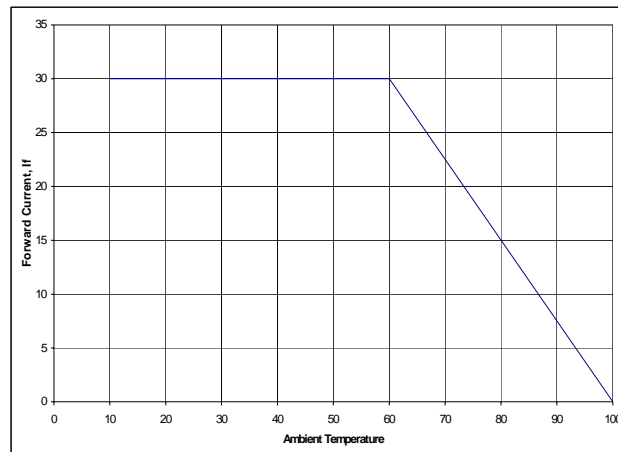


Fig. 5 Recommended IR-reflow Soldering Profile

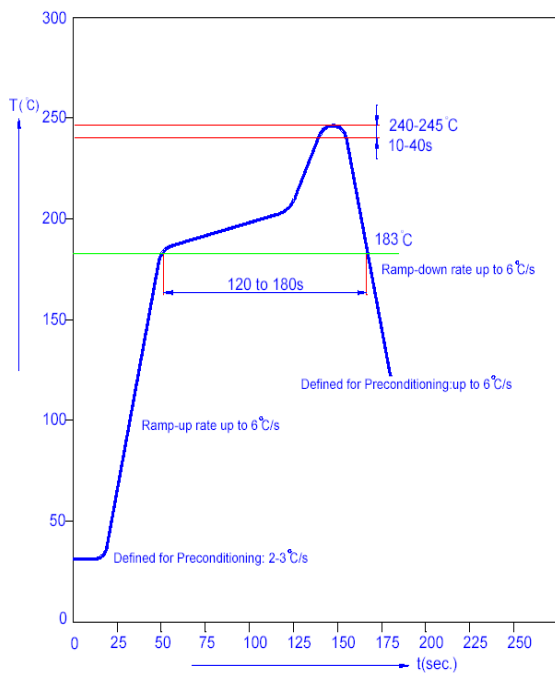
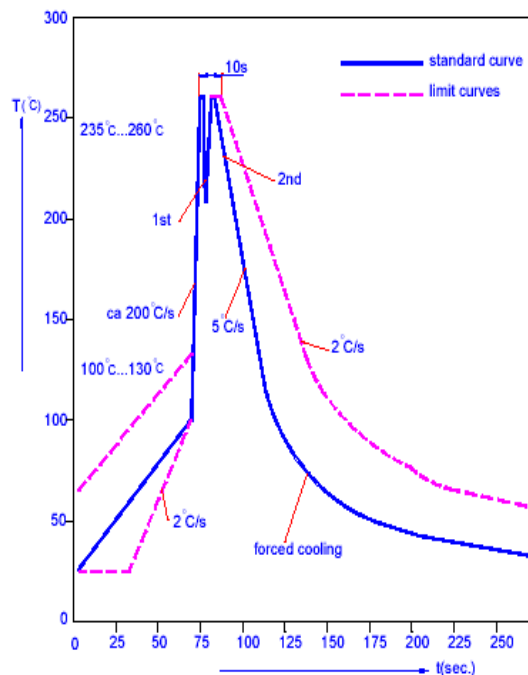


Fig. 6 Recommended TTW Soldering Profile

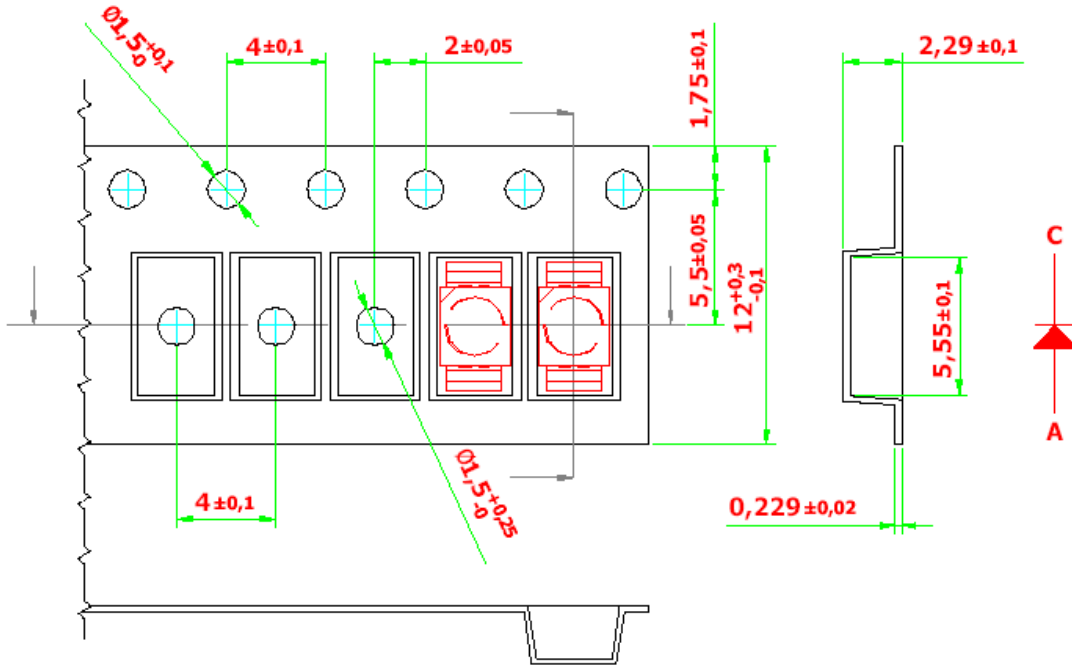




● Taping And Orientation

Reels come in quantity of 8000 units or 2000 units.

Reel diameters are 330 mm and 180 mm respectively.



200 mm min. for $\varnothing 180$ reel.

480 mm min. for $\varnothing 180$ reel.

200 mm min. for $\varnothing 330$ reel.

960 mm min. for $\varnothing 330$ reel.

