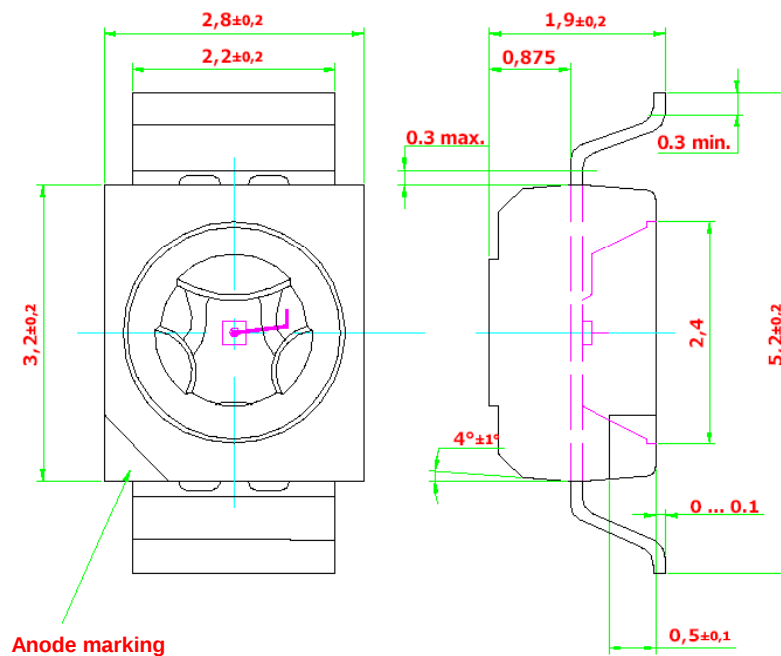




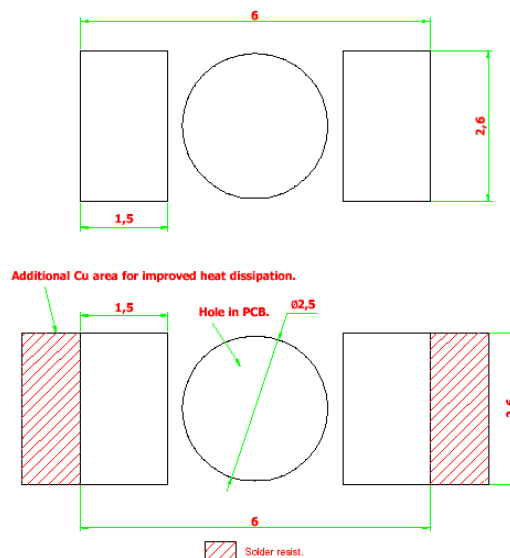
● Feature:

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 (dom. WL)	Luminous Intensity @ If = 20mA Iv (mcd)
BL-PDH-GRS-C10 - BIN M1 - BIN M2 - BIN N1 - BIN N2	AlGaAs/ Hyper Red, 645 nm	18.0 ... 45.0 18.0 ... 22.4 22.4 ... 28.5 28.5 ... 35.5 35.5 ... 45.0
BL-PDH-GRS-C20 - BIN N1 - BIN N2 - BIN P1 - BIN P2		28.5 ... 71.5 28.5 ... 35.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5

Forward voltage @ If=20 mA.	Chip Type	Viewing angle at 50% Iv	Reverse current, I _R @ V _R = 5V, (max)
1.9 V (typ.); 2.6 V (max)	AlGaAs	120°	100 μA

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 Vf binning is also available upon request. Binning scheme is as per following table.

● Absolute Maximum Ratings:

	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current; (tp ≤ 10 μs, 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



● Vf Binning:

Vf 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, Vf is measured with an accuracy of ± 0.1 V.

● Wavelength Grouping:

Color	Group	Wavelength distribution (nm)
BL-PDH; Hyper Red	Full	640 – 650

Wavelength is measured with an accuracy of ± 1 nm.

● Typical electro-optical characteristics curves:

Fig. 1 Relative luminous intensity vs. forward current.

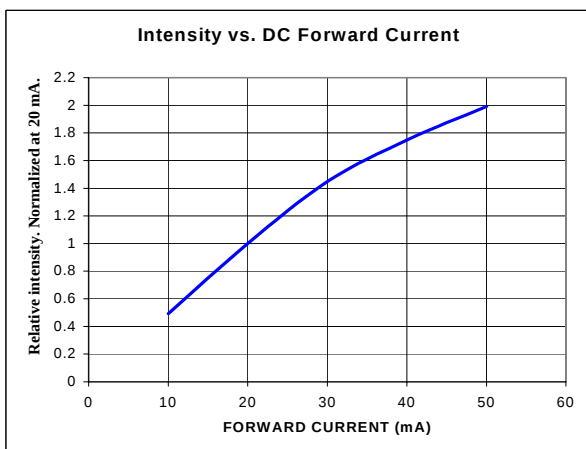


Fig. 3 Radiation pattern

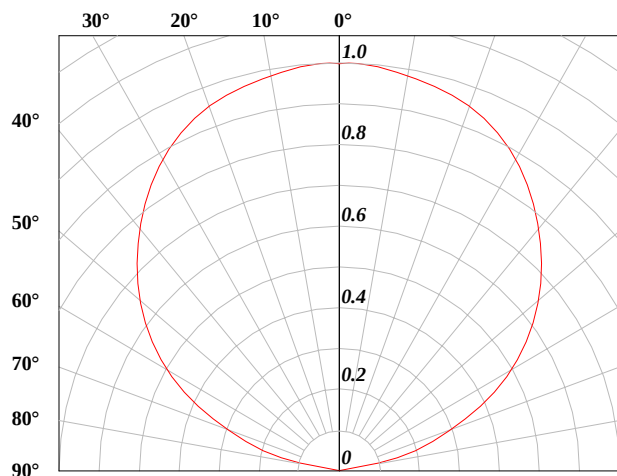


Fig. 2 Forward current vs. forward voltage.

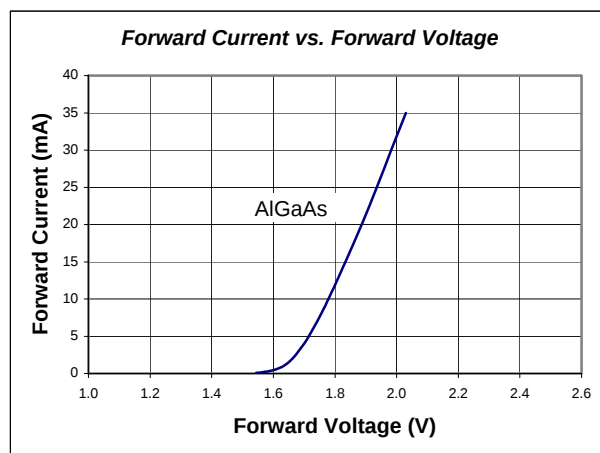


Fig. 4 Maximum forward current vs. temperature.

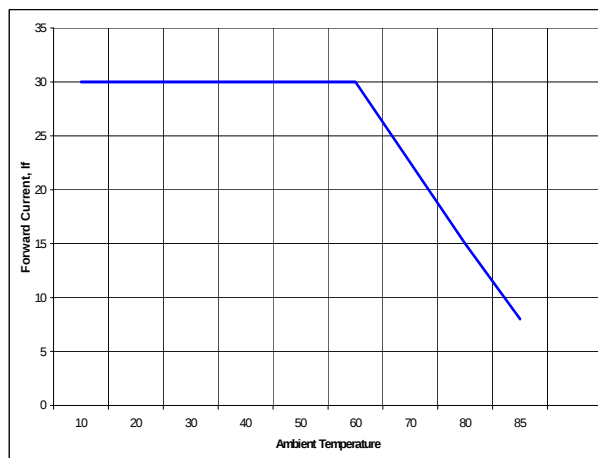




Fig. 6 Recommended IR-reflow Soldering Profile

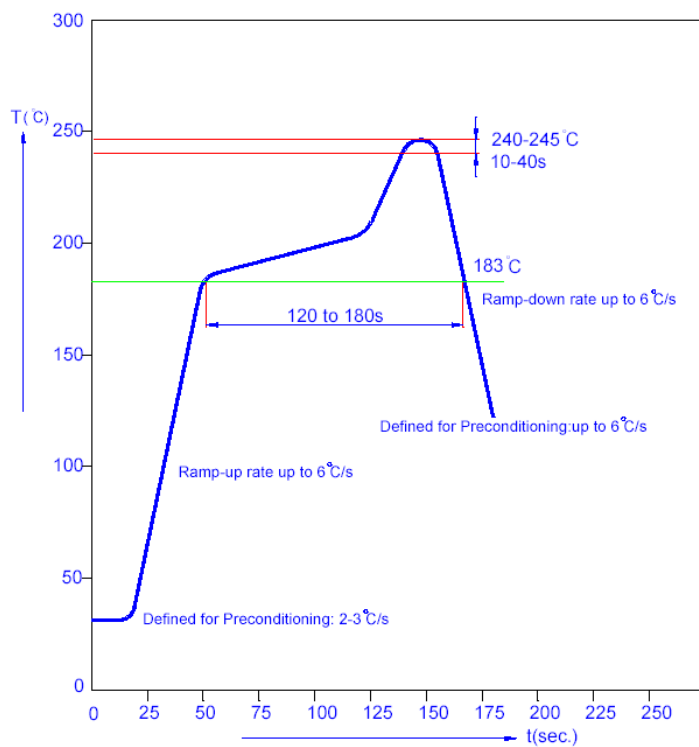
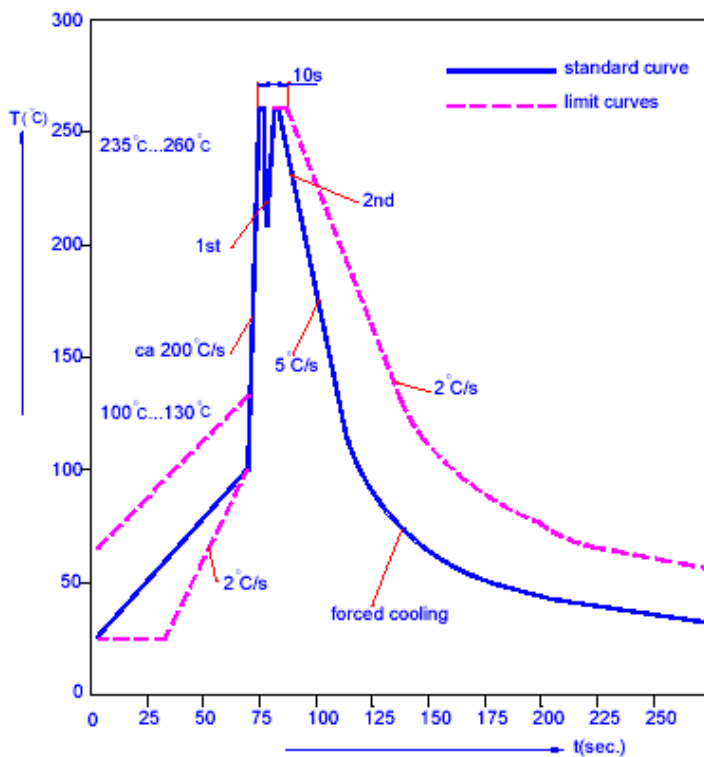


Fig. 6 Recommended TTW Soldering Profile

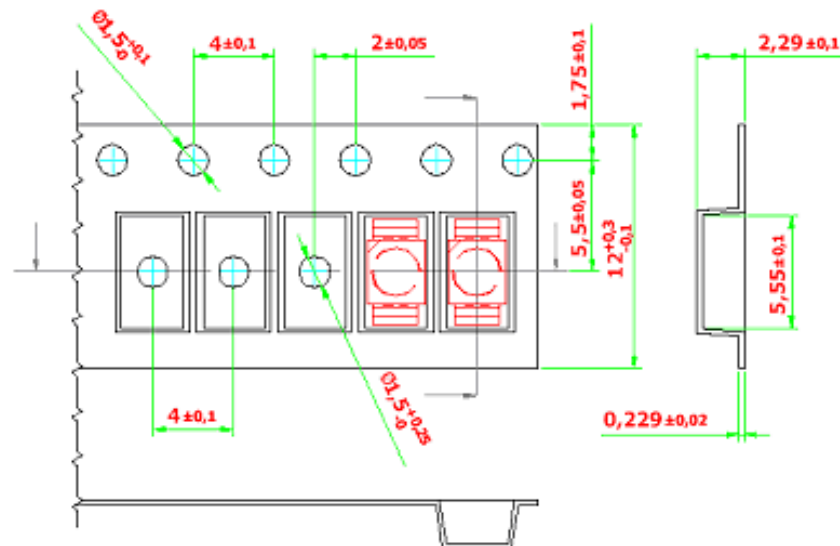




● Taping And Orientation:

Reels come in quantity of 2000 units.

Reel diameter is 180 mm.



200 mm min. for Ø180 reel.

480 mm min. for Ø180 reel.

200 mm min. for Ø330 reel.

960 mm min. for Ø330 reel.

