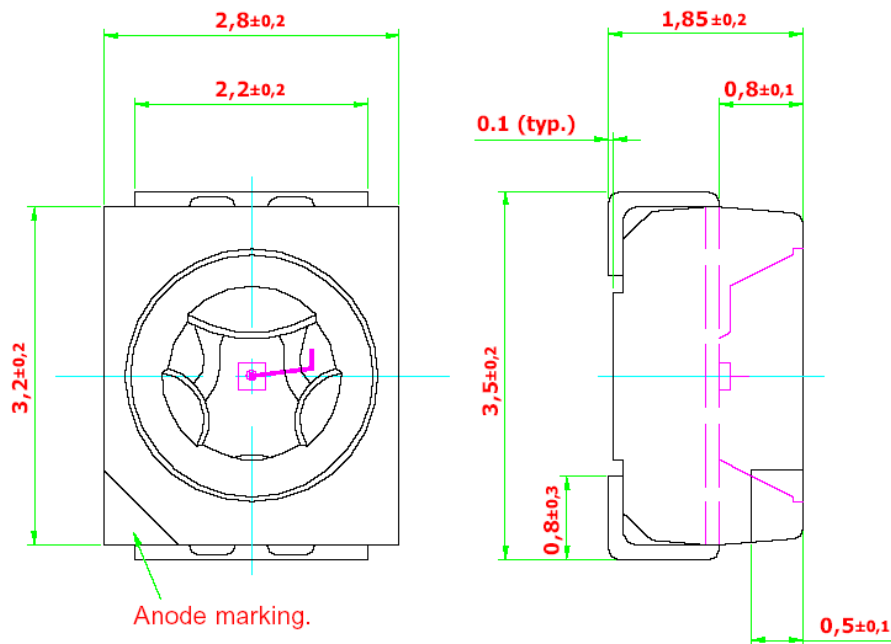




● **Feature:**

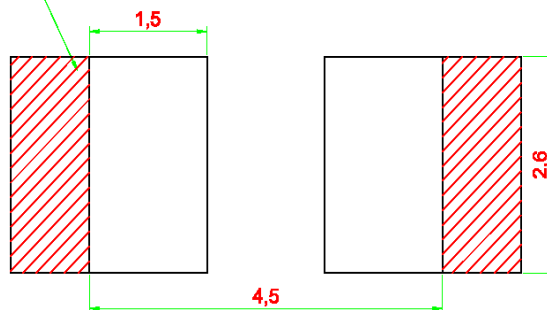
1. Surface mount LED.
2. 120° viewing angle.
3. Small package outline (LxWxH) of 3.2 x 2.8 x 1.8 mm.
4. Qualified according to JEDEC moisture sensitivity Level 2.
5. Compatible to both IR reflow soldering and TTW soldering.
6. This product does not contain restriction substance, compliance ROHS standard.

● **Package Dimension:**



Recommended Solder Pad

Additional Cu area for improved heat dissipation.



Solder resist.



● Optical Characteristics:

Part Number	Chip Technology / Color (dom. WL)	Luminous Intensity @ $I_f = 20\text{mA}$ I_v (mcd)
BL-PDH-GJS-C20	AlGaAs/ Hyper Red, 645 nm	18.0 ... 45.0
<ul style="list-style-type: none">• BIN M1• BIN M2• BIN N1• BIN N2		18.0 ... 22.4 22.4 ... 28.5 28.5 ... 35.5 35.5 ... 45.0
BL-PDH-GJS-C30		28.5 ... 71.5
<ul style="list-style-type: none">• BIN N1• BIN N2• BIN P1• BIN P2		28.5 ... 35.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5

Forward voltage @ $I_f=20\text{ mA}$.	Chip Type	Viewing angle at 50% I_v	Reverse current, I_R @ $V_R = 5\text{V}$, (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 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

● **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.

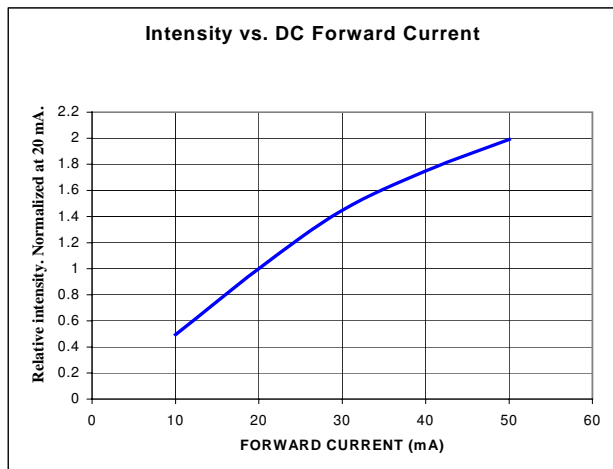


Fig. 3 Radiation pattern.

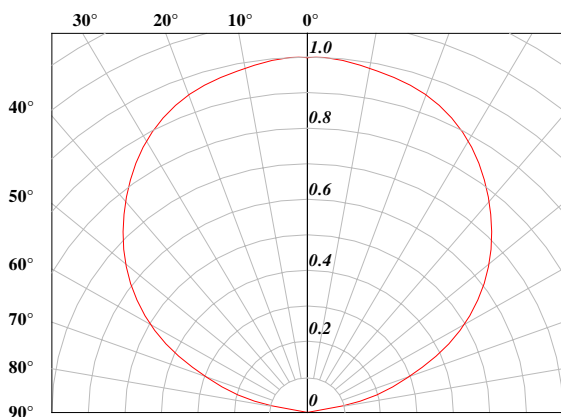


Fig. 2 Forward current vs. forward voltage.

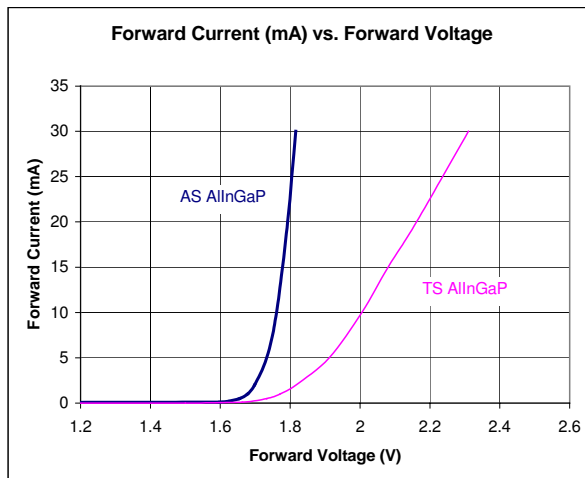


Fig. 4 Maximum forward current vs. temperature

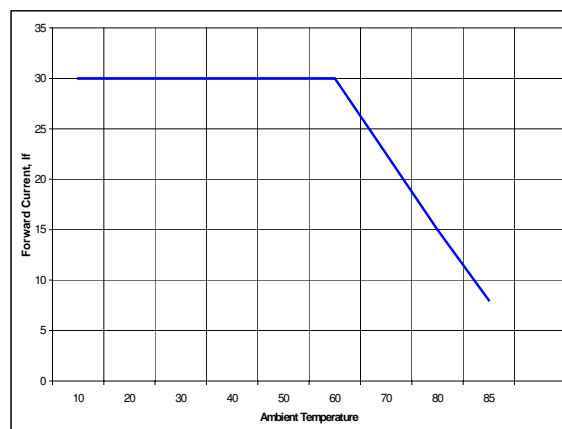




Fig. 5 Recommended IR-reflow Soldering Profile (acc. to IPC 9501)

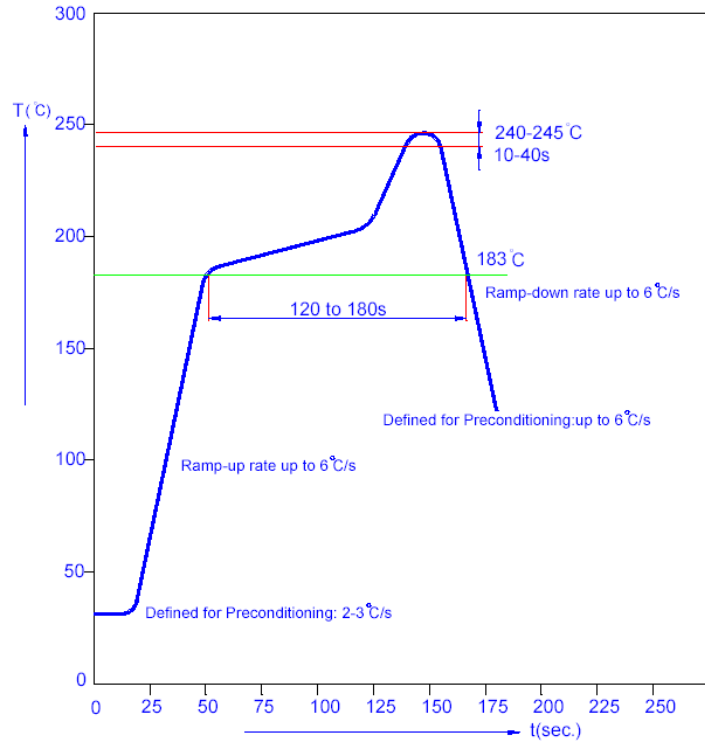
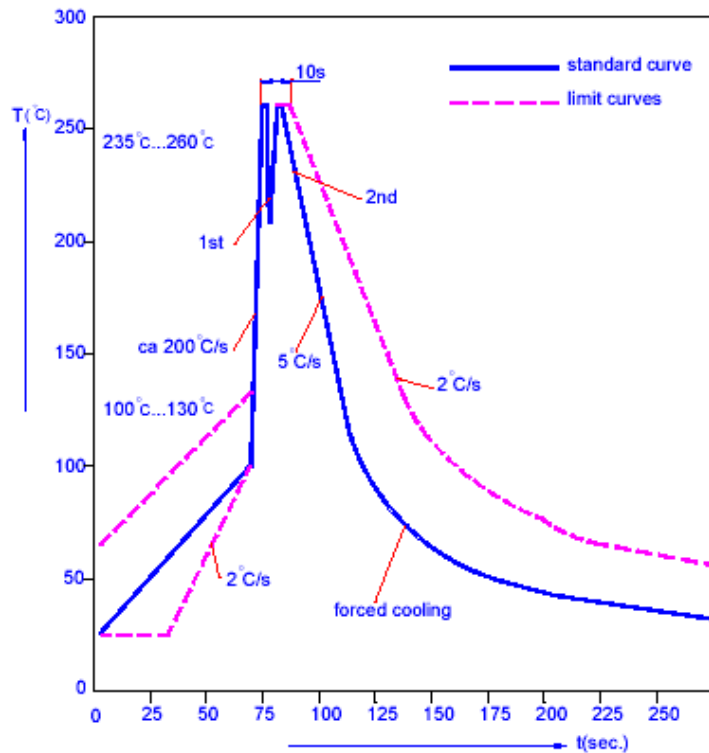


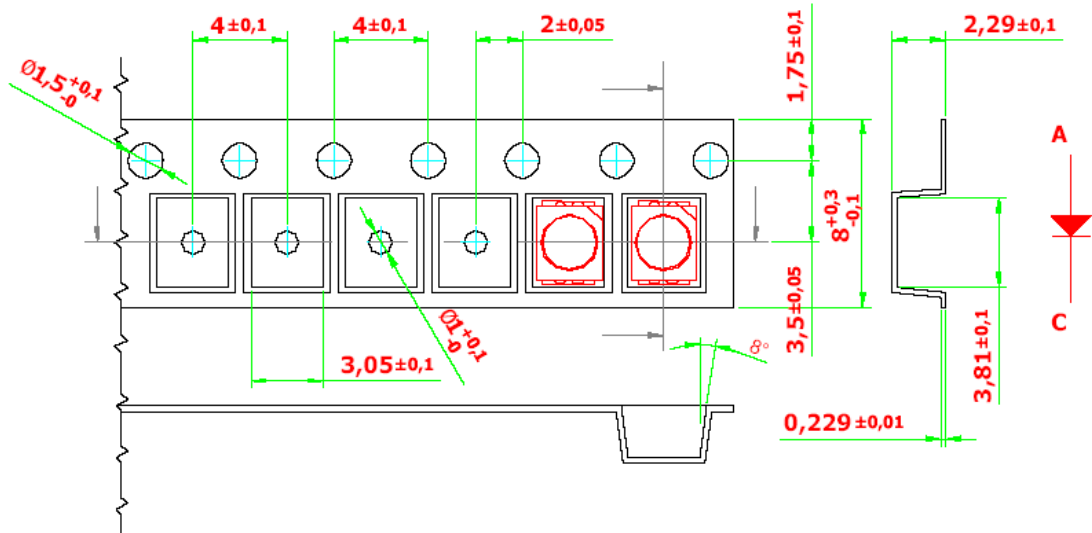
Fig. 6 Recommended TTW Soldering Profile (acc. to CECC 00802)





● **Taping And Orientation:**

Reels come in quantity of 2000 units. Reel diameters is 180 mm .



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.

