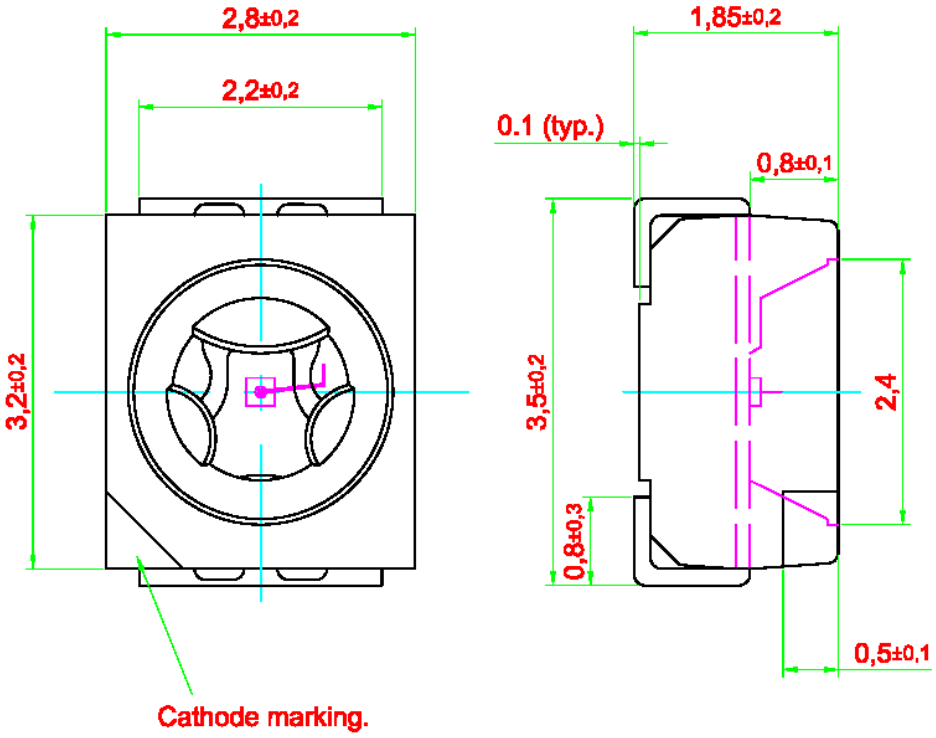
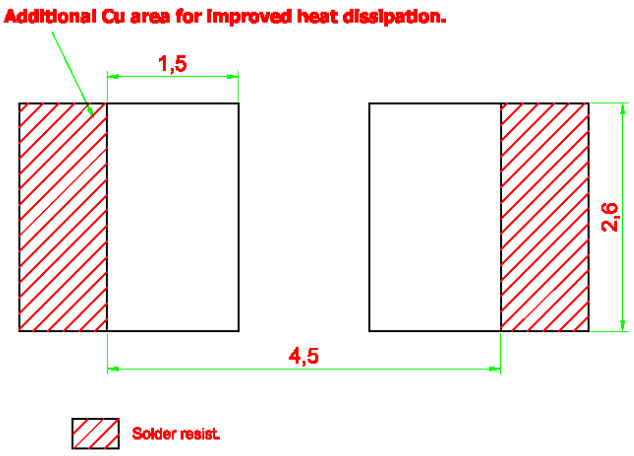
- **Feature:**
  1. Surface mount LED.
  2. 120° viewing angle.
  3. Small package outline (LxWxH) of 3.2 x 2.8 x 1.8 mm.
  4. Qualified according to JEDEC moisture sensitivity Level 2.
  5. Compatible to both IR reflow soldering and TTW soldering.

- **Package Dimension:**



Recommended Solder Pad



- **Optical Characteristics:**

Part Number	Chip Technology / Color	Luminous Intensity @ If = 20mA Iv (mcd)
BL-PDR-GJS-C10 • BIN L1 • BIN L2 • BIN M1 • BIN M2 **BL-PDR-GJS-C20** • BIN M1 • BIN M2 • BIN N1 • BIN N2	GaP / Red, 625 nm	**11.2 … 28.5** 11.2 … 14.0 14.0 … 18.0 18.0 … 22.4 22.4 … 28.5 **28.5 … 71.5** 28.5 … 35.5 35.5 … 45.0 45.0 … 56.0 56.0 … 71.5
BL-PDO-GJS-C10 • 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-GJS-C10 • BIN L1 • BIN L2 • BIN M1 • BIN M2	GaP / Yellow, 587 nm	**11.2 … 28.5** 11.2 … 14.0 14.0 … 18.0 18.0 … 22.4 22.4 … 28.5
BL-PDG-GJS-C20 • BIN L1 • BIN L2 • BIN M1 • BIN M2 **BL-PDG-GJS-C30** • BIN M1 • BIN M2 • BIN N1 • BIN N2	GaP / Green, 570 nm	**11.2 … 28.5** 11.2 … 14.0 14.0 … 18.0 18.0 … 22.4 22.4 … 28.5 **18.0 … 45.0** 18.0 … 22.4 22.4 … 28.5 28.5 … 35.5 35.5 … 45.0

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

NOTE:

1. Other luminous intensity groups are also available upon request.
2. Luminous intensity is measured with an accuracy of ±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:**

Parameter	**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

- **Wavelength Grouping:**

Color	Group	Wavelength distribution (nm)
BL-PDR; Red	Full	620 – 635
BL-PDA; Amber	Full	610 – 621
	W	610 - 615
	X	615 - 621
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.

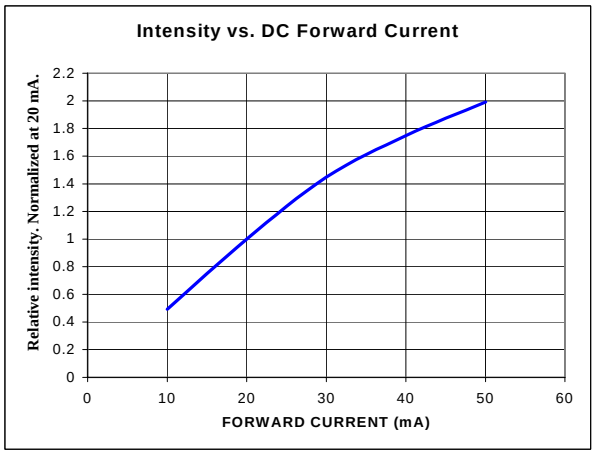


Fig. 2 Forward current vs. forward voltage.

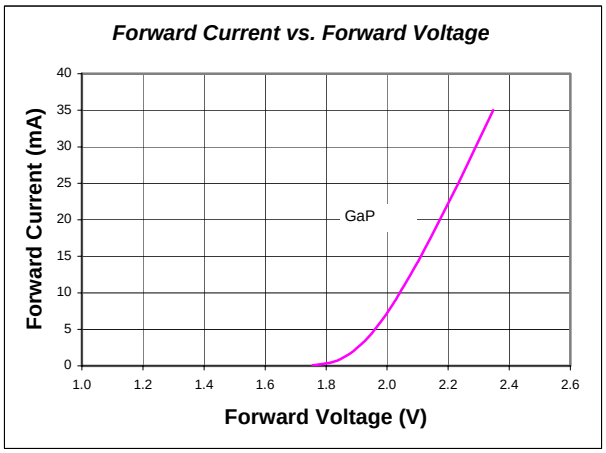


Fig. 3 Radiation pattern.

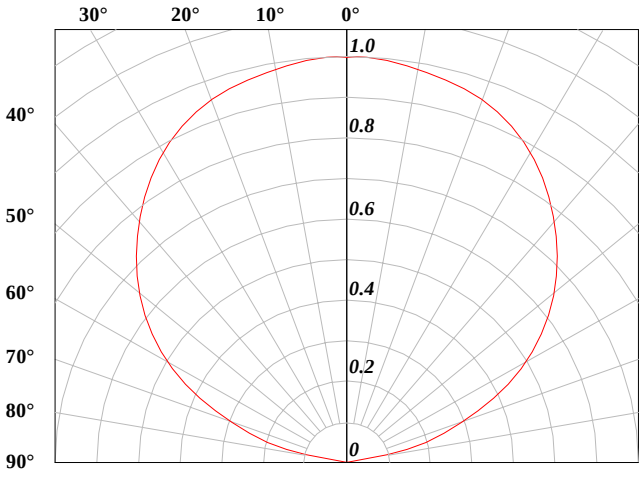


Fig. 4 Maximum forward current vs. temperature.

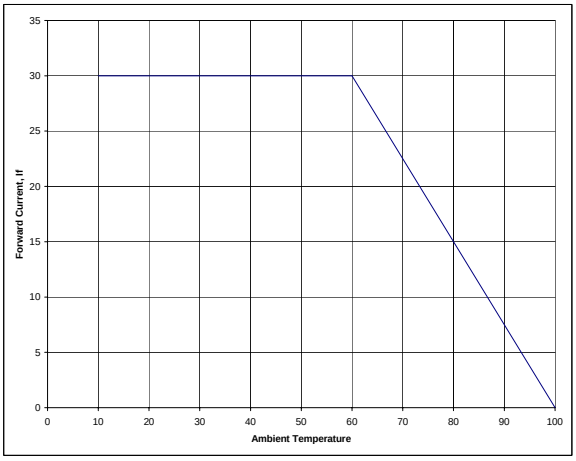


Fig. 5 Recommended IR-reflow Soldering Profile (acc. to IPC 9501)

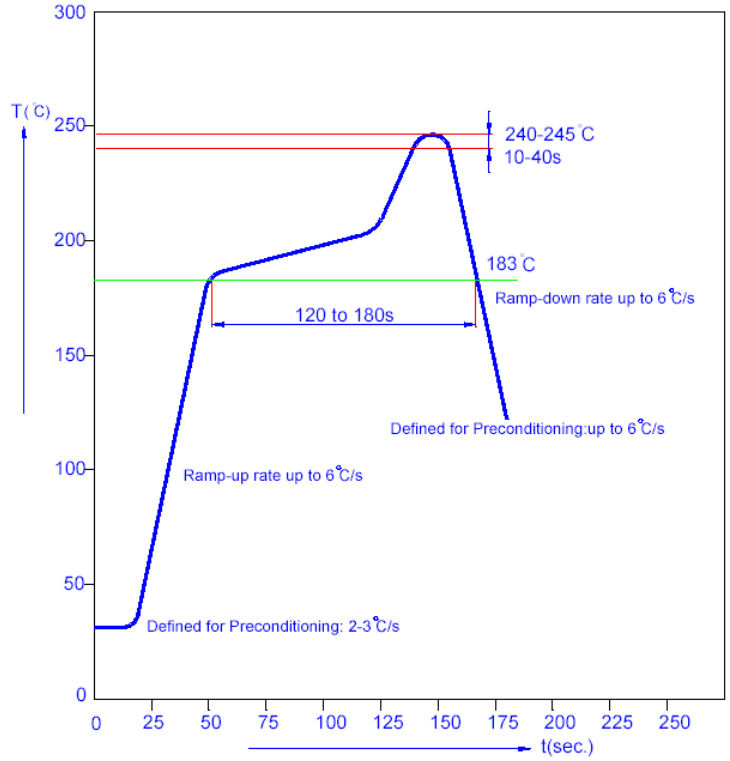
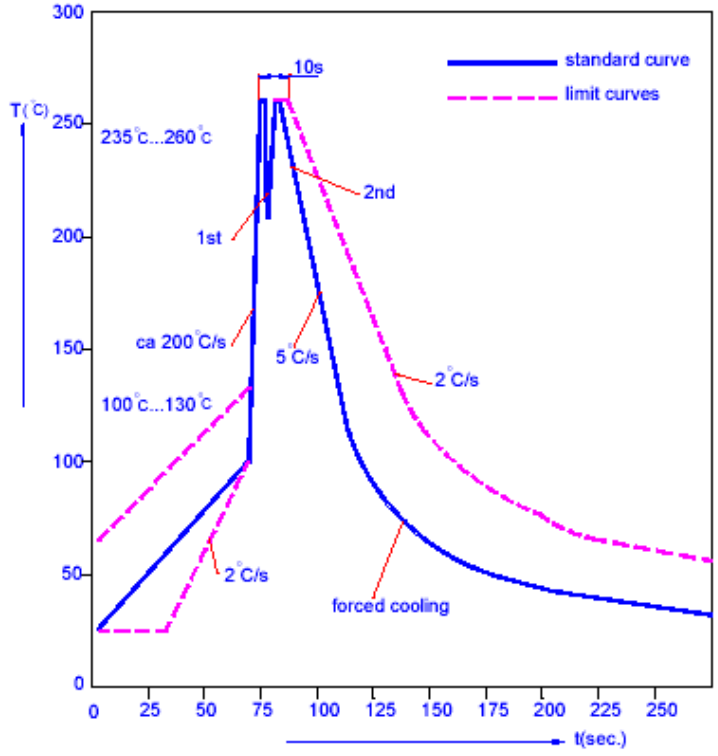
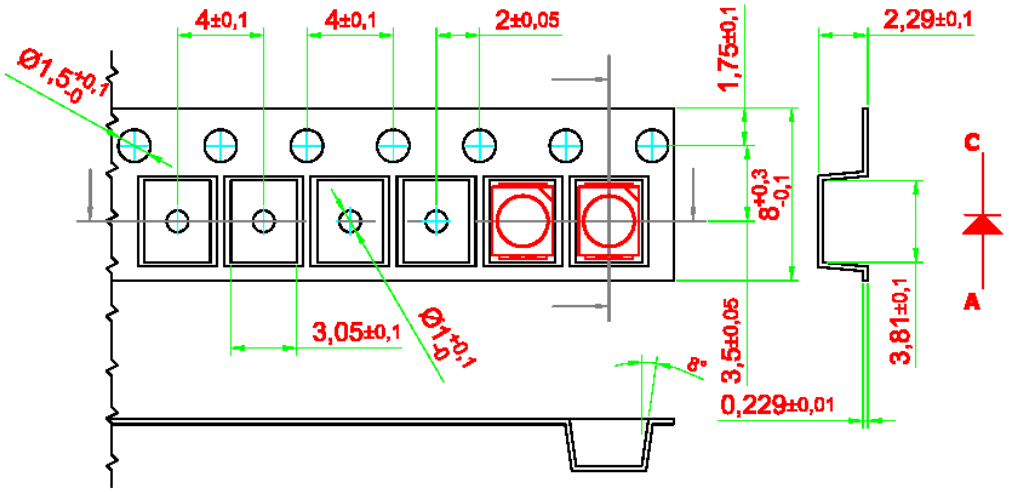


Fig. 6 Recommended TTW Soldering Profile (acc. to CECC 00802)



- **Taping And Orientation:**
  Reels come in quantity of 2000 units. Reel diameters is 180 mm .



200 mm min. for Ø180 reel.
200 mm min. for Ø330 reel.

480 mm min. for Ø180 reel.
960 mm min. for Ø330 reel.