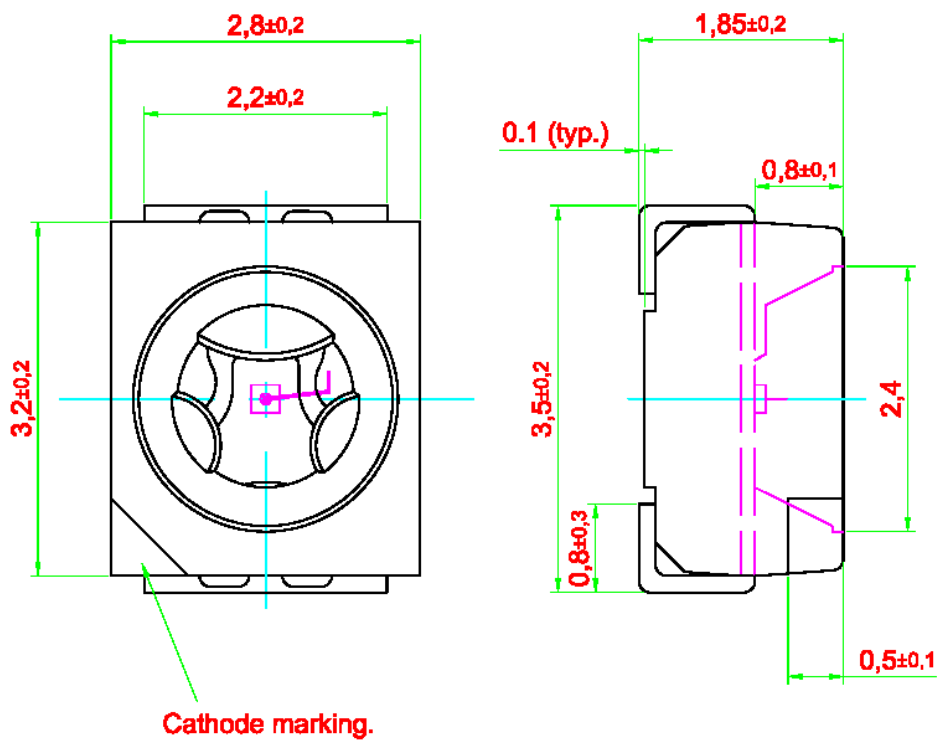




● **Feature:**

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.

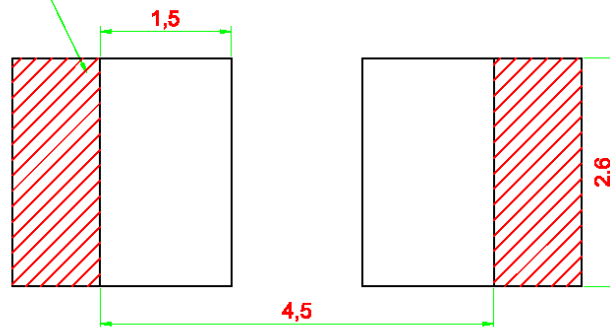
● **Package Dimension:**



Cathode marking.

Recommended Solder Pad

Additional Cu area for improved heat dissipation.



 Solder resist.



● Optical Characteristics:

Part Number	Chip Technology / Color	Luminous Intensity @ If = 20mA Iv ( mcd )
<b>BL-PDR-GJS-C10</b> <ul style="list-style-type: none"> <li>• BIN L1</li> <li>• BIN L2</li> <li>• BIN M1</li> <li>• BIN M2</li> </ul>	GaP / Red, 625 nm	<b>11.2 ... 28.5</b>
<b>BL-PDR-GJS-C20</b> <ul style="list-style-type: none"> <li>• BIN M1</li> <li>• BIN M2</li> <li>• BIN N1</li> <li>• BIN N2</li> </ul>		<b>28.5 ... 71.5</b>
<b>BL-PDO-GJS-C10</b> <ul style="list-style-type: none"> <li>• BIN L1</li> <li>• BIN L2</li> <li>• BIN M1</li> <li>• BIN M2</li> </ul>	GaP / Orange, 605 nm	<b>11.2 ... 28.5</b>
<b>BL-PDY-GJS-C10</b> <ul style="list-style-type: none"> <li>• BIN L1</li> <li>• BIN L2</li> <li>• BIN M1</li> <li>• BIN M2</li> </ul>		<b>11.2 ... 28.5</b>
<b>BL-PDG-GJS-C20</b> <ul style="list-style-type: none"> <li>• BIN L1</li> <li>• BIN L2</li> <li>• BIN M1</li> <li>• BIN M2</li> </ul>	GaP / Green, 570 nm	<b>11.2 ... 28.5</b>
<b>BL-PDG-GJS-C30</b> <ul style="list-style-type: none"> <li>• BIN M1</li> <li>• BIN M2</li> <li>• BIN N1</li> <li>• BIN N2</li> </ul>		<b>18.0 ... 45.0</b>

Forward voltage @ If=20 mA.	Chip Type	Viewing angle at 50% Iv	Reverse current, I <sub>R</sub> @ V <sub>R</sub> = 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  $\pm 11\%$ .
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:**

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	$^{\circ}C$
Operating temperature.	-40 ... +100	$^{\circ}C$
Storage temperature.	-40 ... +100	$^{\circ}C$
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:**

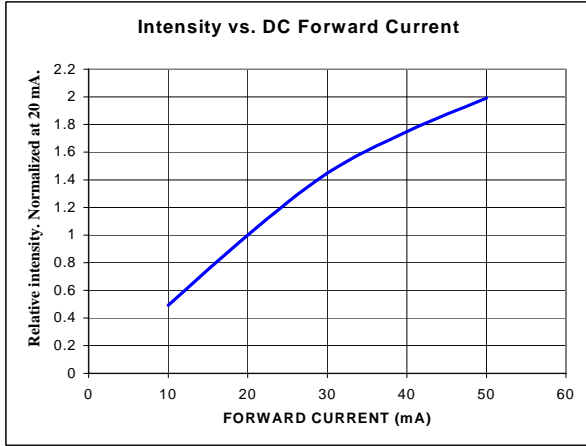
<b>Color</b>	<b>Group</b>	<b>Wavelength distribution (nm)</b>
BL-PDR; Red	Full	620 – 635
BL-PDA; Amber	Full	610 – 621
	W	610 - 615
	X	615 - 621
BL-PDO; Orange	Full	600 – 612
	W	600 - 603
	X	603 - 606
	Y	606 - 609
	Z	609 - 612
BL-PDY; Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 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  $\pm 1$  nm.

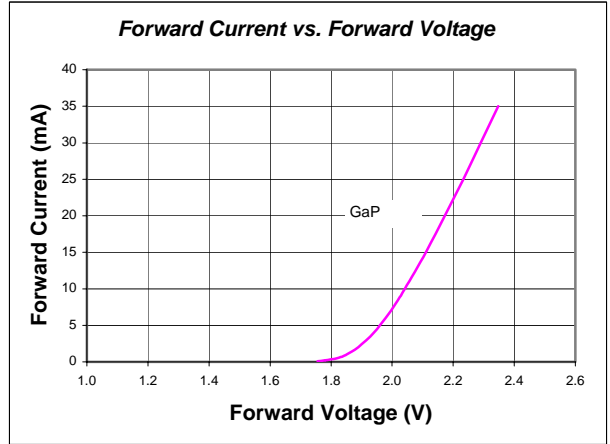


● Typical electro-optical characteristics curves:

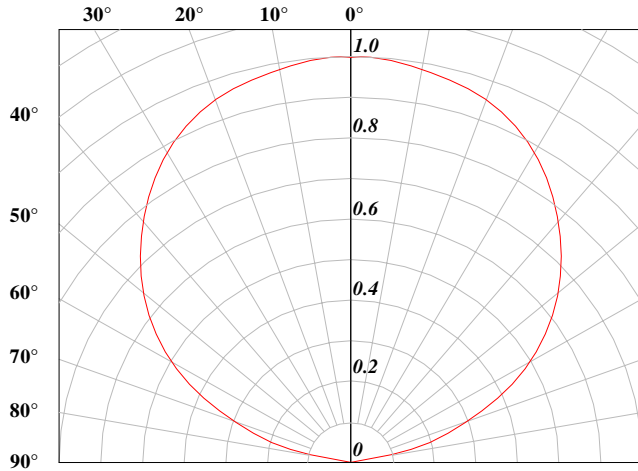
**Fig. 1** Relative luminous intensity vs. forward current.



**Fig. 2** Forward current vs. forward voltage.



**Fig. 3** Radiation pattern.



**Fig. 4** Maximum forward current vs. temperature.

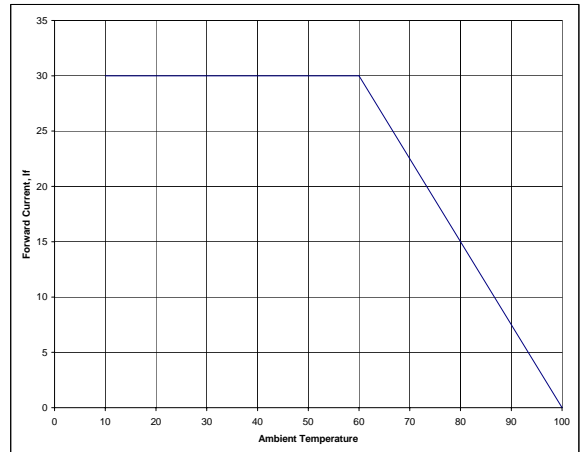




Fig. 5 Recommended IR-reflow Soldering Profile (acc. to IPC 9501)

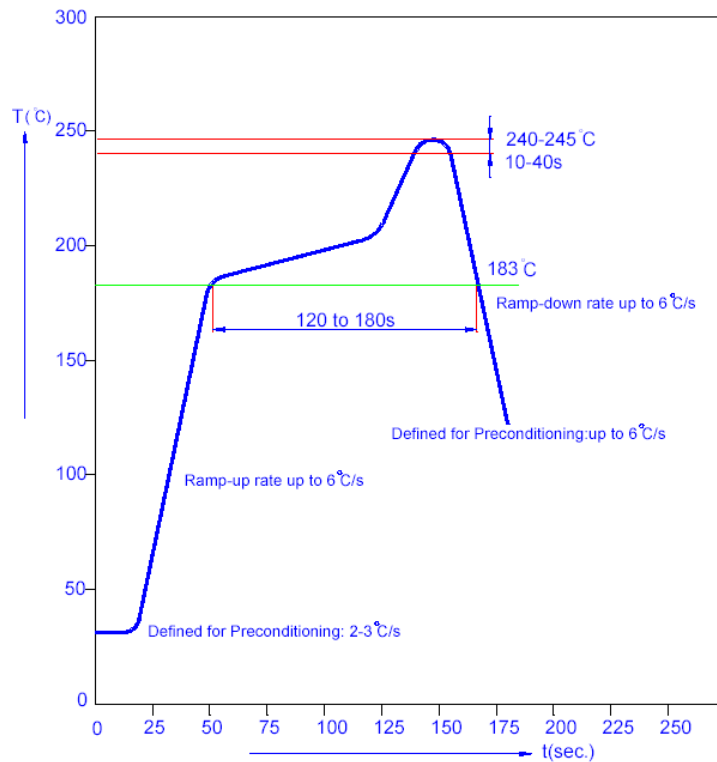
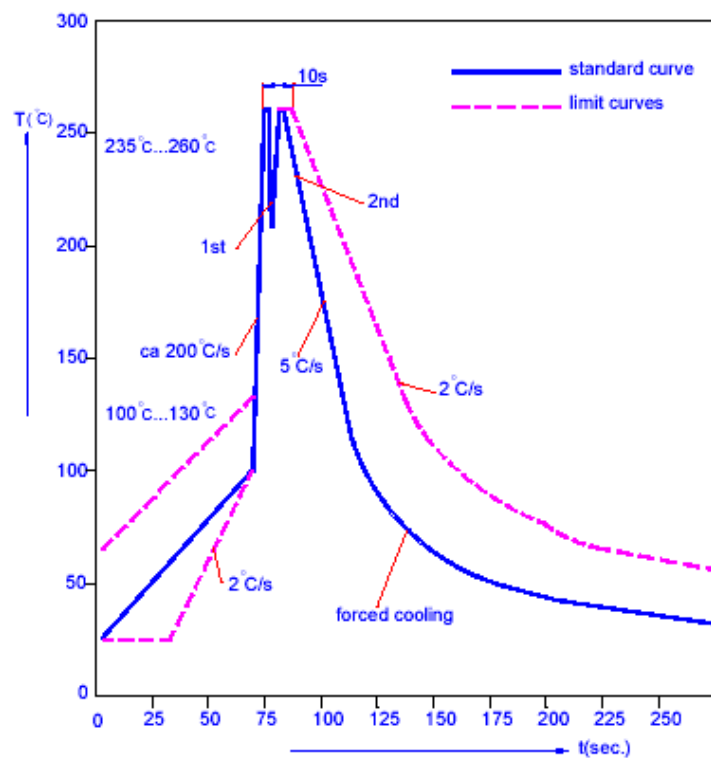


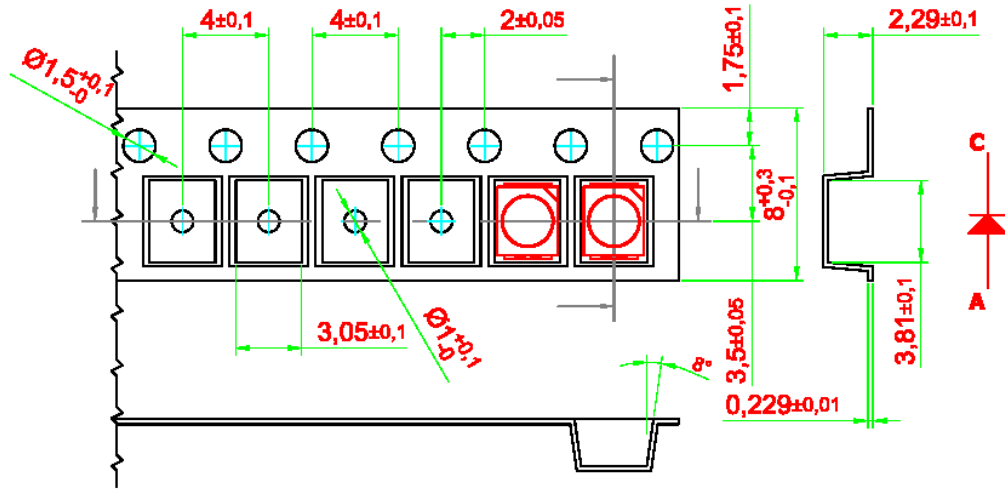
Fig. 6 Recommended TTW Soldering Profile (acc. to CECC 00802)





● Taping And Orientation:

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



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

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

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

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

