



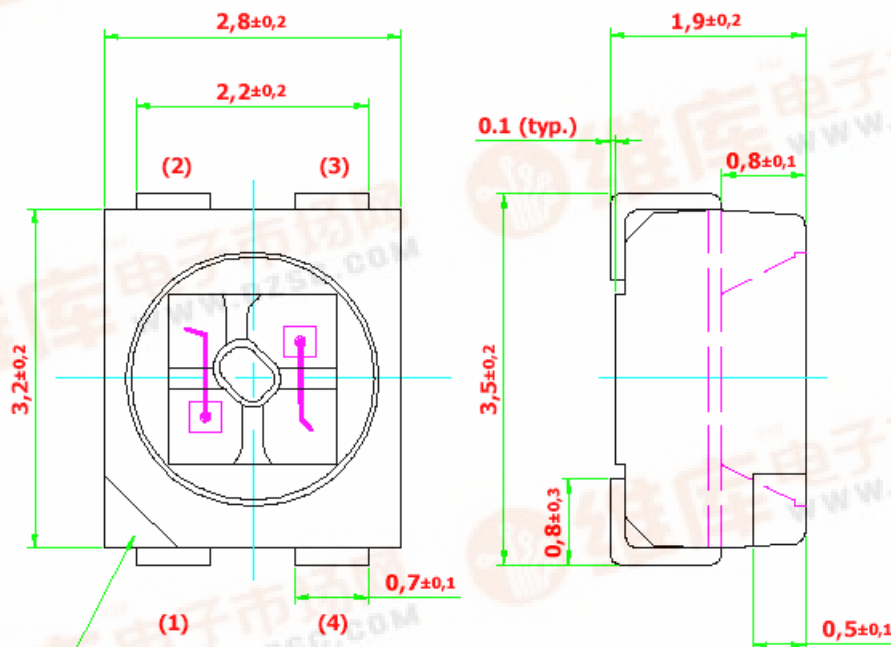
AMERICAN BRIGHT OPTOELECTRONICS CORP.

Bi-Color DOMILED GaP BL-PMxx-GJS Series

● Feature:

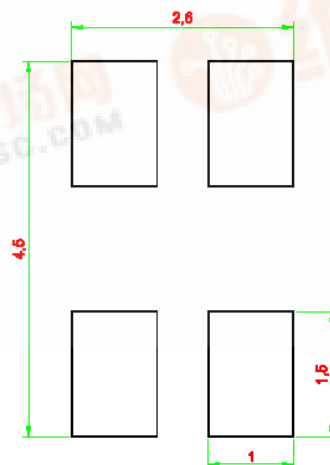
1. High brightness bi-color surface mount LED.
2. 120° viewing angle.
3. Small package outline (LxWxH) of 2.8 x 3.2 x 1.9 mm.
4. Qualified according to JEDEC moisture sensitivity Level 2.
5. Compatible to both IR reflow soldering and TTW soldering.

● Package Dimension:



- (1) Chip#1 Cathode
- (2) Chip#1 Anode
- (3) Chip#2 Cathode
- (4) Chip#2 Anode

Recommended Solder Pad





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● Optical Characteristics:

Part Number	Color λ_{dom} (nm)		Luminous Intensity @ $I_f = 20\text{mA}$, I_v (mcd)	
	Chip#1	Chip#2	Chip#1	Chip#2
BL-PMRG-GJS • BIN L L • BIN L M • BIN M L • BIN M M	Red 625	Green 570	11.2 ... 28.5 11.2 ... 18.0 11.2 ... 18.0 18.0 ... 28.5 18.0 ... 28.5	11.2 ... 28.5 11.2 ... 18.0 18.0 ... 28.5 11.2 ... 18.0 18.0 ... 28.5
BL-PMRY-GJS • BIN L L • BIN L M • BIN M L • BIN M M	Red 625	Yellow 587	11.2 ... 28.5 11.2 ... 18.0 11.2 ... 18.0 18.0 ... 28.5 18.0 ... 28.5	11.2 ... 28.5 11.2 ... 18.0 18.0 ... 28.5 11.2 ... 18.0 18.0 ... 28.5
BL-PMYG-GJS • BIN L L • BIN L M • BIN M L • BIN M M	Yellow 587	Green 570	11.2 ... 28.5 11.2 ... 18.0 11.2 ... 18.0 18.0 ... 28.5 18.0 ... 28.5	11.2 ... 28.5 11.2 ... 18.0 11.2 ... 18.0 18.0 ... 28.5 18.0 ... 28.5

Color	V_f at $I_f=20\text{mA}$		Viewing Angle
	Typ.	Max	120
Red / Green / Yellow	2.2	2.5	

NOTE:

1. Luminous intensity is measured with an accuracy of $\pm 11\%$.
2. Half group binning for luminous intensity is also available upon request.



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● 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)	1000	mA
Reverse voltage.	5	V
LED junction temperature.	125	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C

● Wavelength Grouping:

Color	Group	Wavelength distribution (nm)
Red	Full	620 – 635
Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 594
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



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● Typical electro-optical characteristics curves:

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

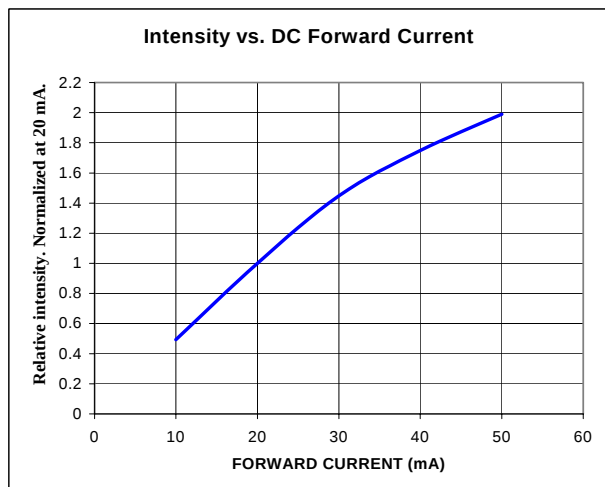


Fig.2 Forward current vs. forward voltage.

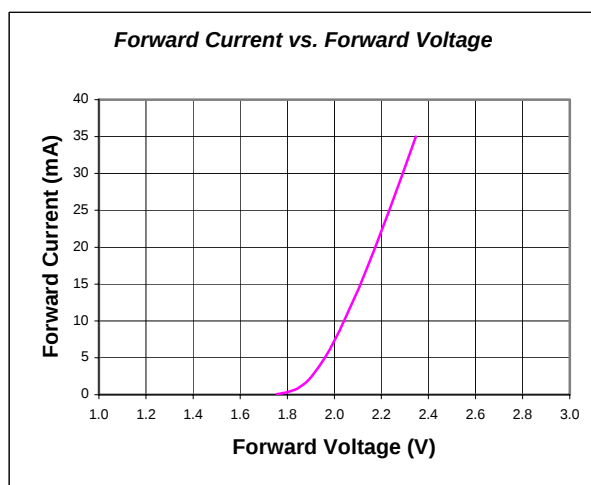


Fig.3 Radiation pattern

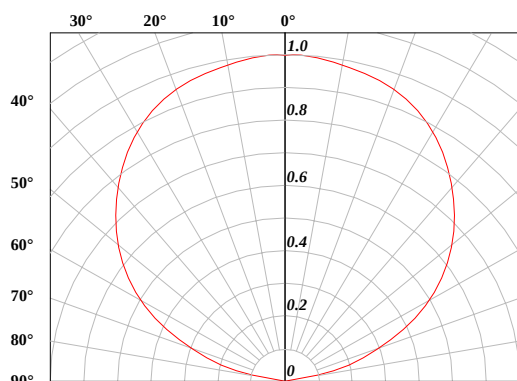


Fig.4 Maximum forward current vs. temperature

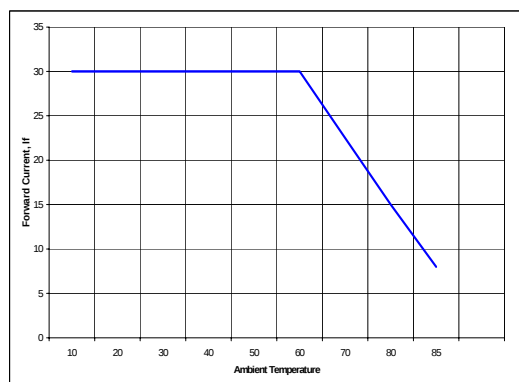


Fig.5 Recommended IR-reflow Soldering Profile.

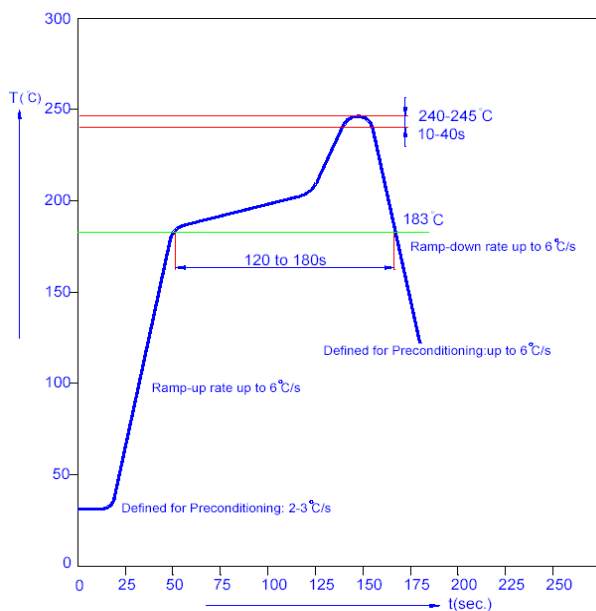
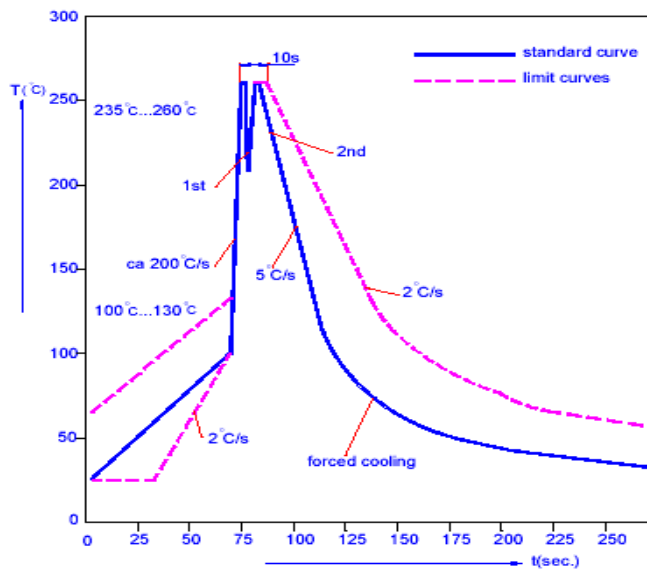


Fig.6 Recommended TTW Soldering Profile



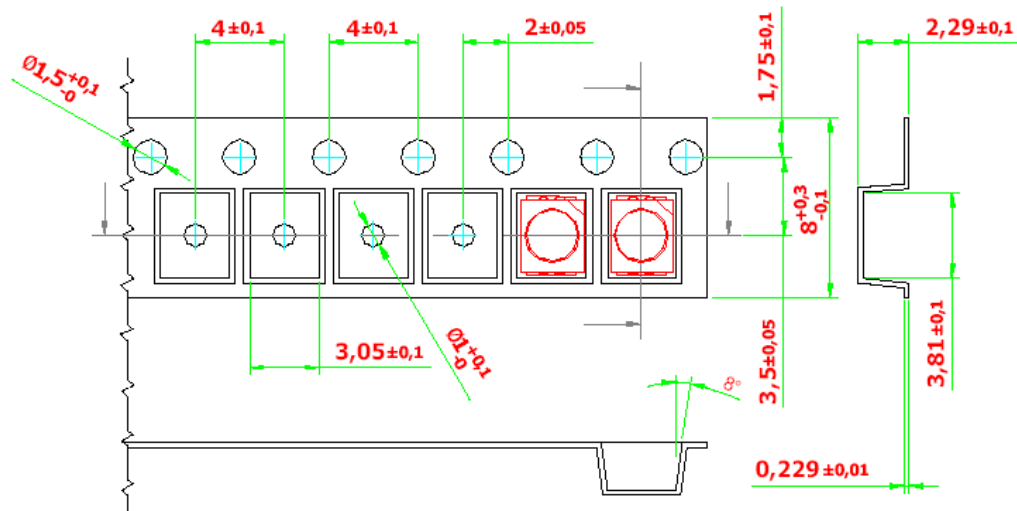


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● Taping And Orientation.

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



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

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

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

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

