

Circuit Board Indicator, 3mm Bi-Level LED CBI

BL-LA2D3-A1004

■ FEATURES

- 3mm Bi-Level LED CBI , bi level
- Bi-level CBI design providing two vertically stacked indicator positions
- 3mm LED package ideal for compact and high-density panel layouts
- Pre-formed leads ensure consistent PCB alignment across both levels
- Black housing enhances contrast for clear ON/OFF visibility
- Long-life LED chip delivering stable luminous output
- UL 94V-0 rated PA66 housing
- Halogen-free and RoHS compliant
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■ APPLICATIONS

- Multi-status indication in control and instrumentation panels
- Compact indicator stacks for communication or test equipment
- Vertical display modules with dual light points
- Switch and keypad backlighting
- Consumer and industrial equipment indicators
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■ ATTENTION

This device is sensitive to electrostatic discharge.

Use appropriate ESD handling procedures during assembly.

■ Absolute maximum ratings (Ta=25°C)

Parameter	SR	E	Y	G	B	W	Unit
Forward Current I_F	25	25	25	30	30	30	mA
Power Dissipation P_d	60	60	60	65	120	120	mW
Reverse Voltage V_R	5	5	5	5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	150	150	100	100	mA
Operation Temperature T_{OPR}	-40 to +80						°C
Storage Temperature T_{STG}	-40 to +85						°C
Lead Soldering Temperature TSOL	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)						°C

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■ Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=20mA)

Part Number	Assembly LED		Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
			Emitted Color	Material	IP (nm)		Typ	Max	Min	Typ	
BL-LA2D3-A1004BB	LED1	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
	LED2	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004BG	LED1	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
	LED2	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004BY	LED1	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
	LED2	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
BL-LA2D3-A1004GB	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004GG	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004GR	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
BL-LA2D3-A1004G-RG	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004GX	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	X	Empty								
BL-LA2D3-A1004GY	LED1	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
BL-LA2D3-A1004RB	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004RE	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	E	amber	AlGaAs	610	C. D.	1.85	2.2	30	110	60
BL-LA2D3-A1004RG	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004RG-RG	LED1	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004RG-Y	LED1	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	G	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
BL-LA2D3-A1004RG-YG	LED1	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	YG	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60

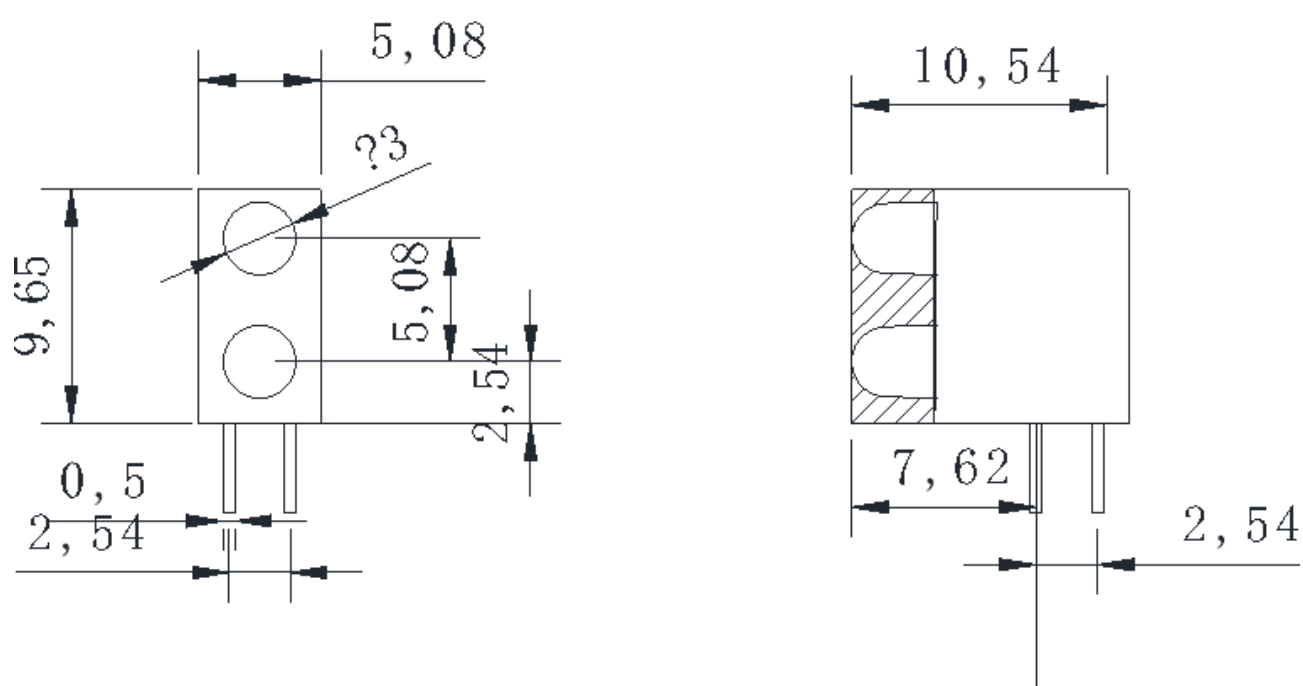
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BL-LA2D3-A1004RR	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
BL-LA2D3-A1004RX	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	X	Empty								
BL-LA2D3-A1004RY	LED1	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
BL-LA2D3-A1004WW	LED1	W	White	InGaN	-	C. D.	3.1	4.2	300	700	60
	LED2	W	White	InGaN	-	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004XB	LED1	X	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
	LED2	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004XG	LED1	X	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004XR	LED1	X	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
BL-LA2D3-A1004X-RG	LED1	X	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
	LED2	RG	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004XY	LED1	X	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
	LED2	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
BL-LA2D3-A1004YG	LED1	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
	LED2	G	Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004YG-B	LED1	YG	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	B	Blue	InGaN	465	C. D.	3.1	4.2	300	700	60
BL-LA2D3-A1004YG-R	LED1	YG	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
BL-LA2D3-A1004YG-YG	LED1	YG	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
	LED2	YG	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
			Green	GaP/GaP	570	C. D.	2.2	2.5	1.5	20	60
BL-LA2D3-A1004YR	LED1	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
	LED2	R	Red	GaAsP/GaP	635	C. D.	2.1	2.5	10	70	60
BL-LA2D3-A1004YX	LED1	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
	LED2	X	Empty								
BL-LA2D3-A1004YY	LED1	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60
	LED2	Y	Yellow	GaAsP/GaP	585	C. D.	2.1	2.5	1.5	20	60

■ Package configuration & Internal circuit diagram

BL-LA2D3-A1004 Series



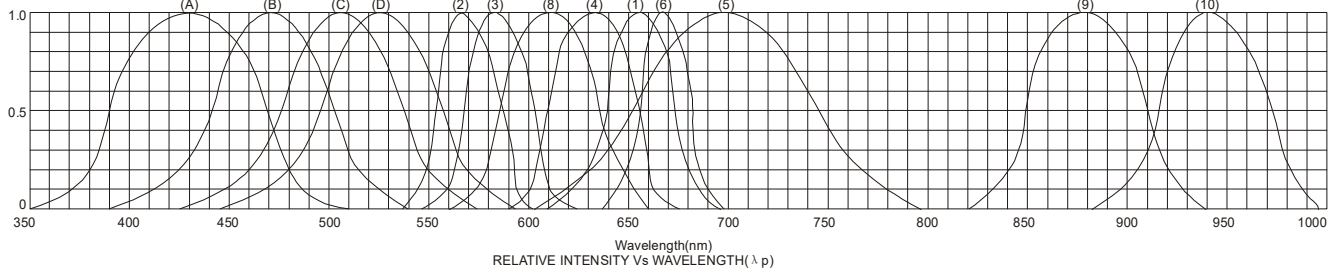
Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

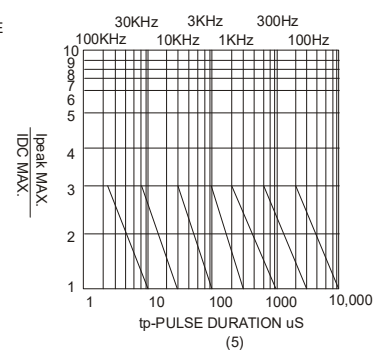
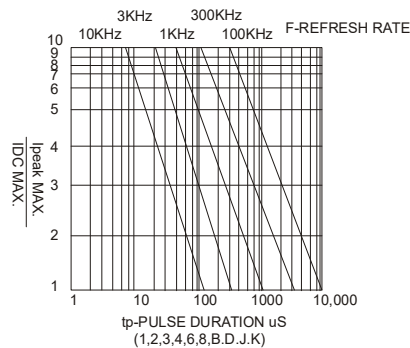
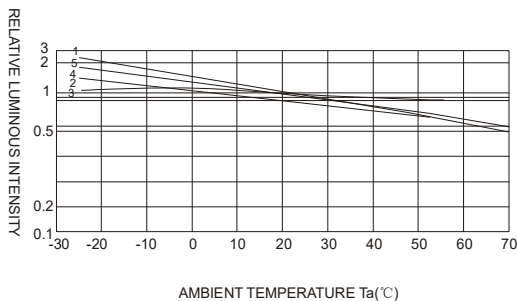
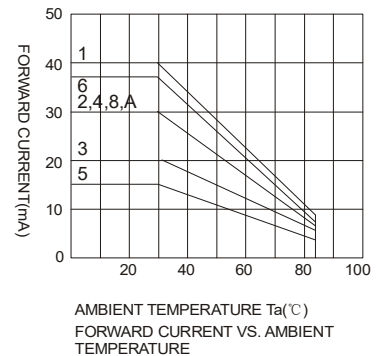
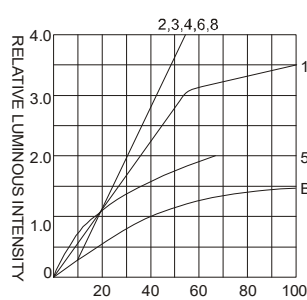
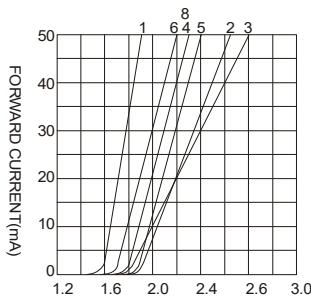
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■ Typical electrical-optical characteristics curves:



- | | |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red | (9) - GaAlAs 880nm |
| (2) - GaP 570nm/Yellow Green | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow | (A) - GaN/SiC 430nm/Blue |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue |
| (5) - GaP 700nm/Bright Red | (C) - InGaN/SiC 505nm/Ultra Green |
| (6) - GaAlAs/GaAs 660nm/Super Red | (D) - InGaAl/SiC 525nm/Ultra Green |
| (8) - GaAsP/GaP 610nm/Super Red | |



NOTE: 25°C free air temperature unless otherwise specified

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■ **Packing and weighting**

