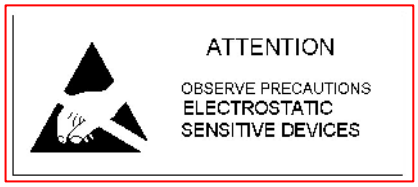
百流光电
BetLux Electronics

LED DOT MATRIX

BL-M12X881XX

■ **Features:**

- 39.10mm (1.2") Φ3.0 dot matrix LED display. BI-COLOR
- Low current operation.
- Excellent character appearance.
- Easy mounting on P.C. Boards or sockets.
- I.C. Compatible.
- ROHS Compliance.





Electrical-optical characteristics: (Ta=25℃) (Test Condition: IF=20mA)

Part No		Chip			VF Unit:V		Iv
Row Cathode Column Anode	Row Anode Column Cathode	Emitted Color	Material	λ_P (nm)	Typ	Max	TYP.(mcd)
BL-M12C881SG-XX	BL-M12D881SG-XX	Super Red	AlGaInP	660	2.10	2.50	200
		Green	GaP/GaP	570	2.20	2.50	195
BL-M12C881EG-XX	BL-M12D881EG-XX	Orange	GaAsP/GaP	635	2.10	2.50	190
		Green	GaP/GaP	570	2.20	2.50	195
BL-M12C881DUG-XX	BL-M12D881DUG-XX	Ultra Red	AlGaInP	660	2.10	2.50	320
		Ultra Green	AlGaInP	574	2.20	2.50	250
BL-M12C881UEUG-XX	BL-M12D881UEUG-XX	Ultra Orange	AlGaInP	630	2.10	2.50	235
		Ultra Green	AlGaInP	574	2.20	2.50	250

■ -XX: Surface / Lens color:

Number	0	1	2	3	4	5
Ref Surface Color	White	Black	Gray	Red	Green	
Epoxy Color	Water clear	White diffused	Red Diffused	Green Diffused	Yellow Diffused	

■ **Absolute maximum ratings (Ta=25℃)**

Parameter	S	G	E	D	UG	UE			Unit
Forward Current I_F	30	30	30	30	30	30			mA
Power Dissipation P_d	75	80	80	75	75	65			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	150	150			mA
Operation Temperature T_{OPR}	-40 to +80								℃
Storage Temperature T_{STG}	-40 to +85								℃
Lead Soldering Temperature T_{SOL}	Max.260±5℃ for 3 sec Max. (1.6mm from the base of the epoxy bulb)								℃

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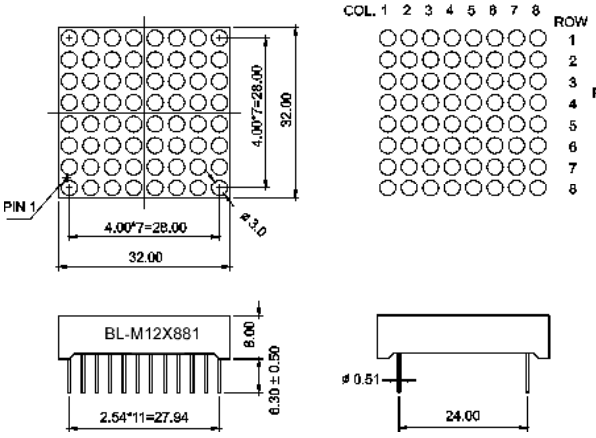
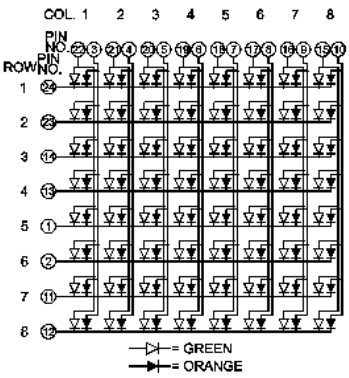
■ Package configuration & Internal circuit diagram

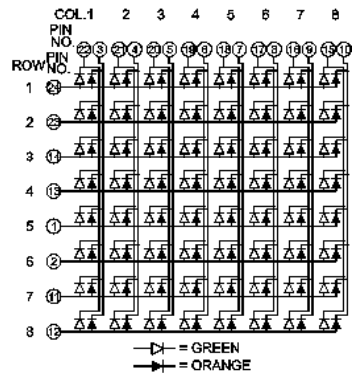
BL-M12X881 Series



BL-M12C881XX



BL-M12D881XX



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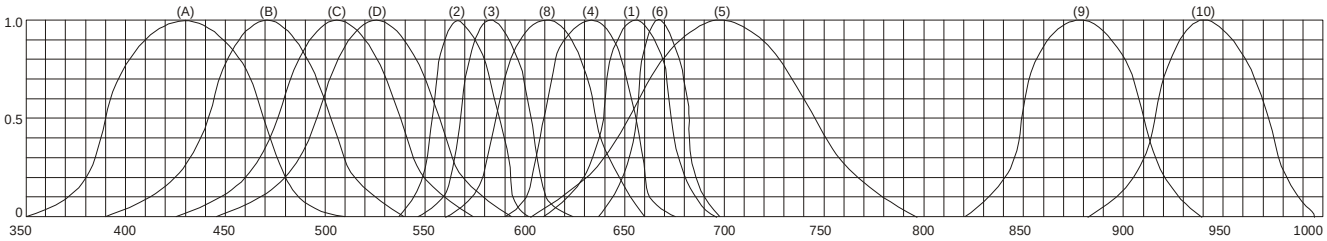
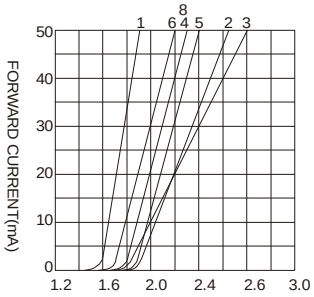
Notes:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.25(0.01")unless otherwise noted.
3. Specifications are subject to change without notice.

■ Typical electrical-optical characteristics curves:

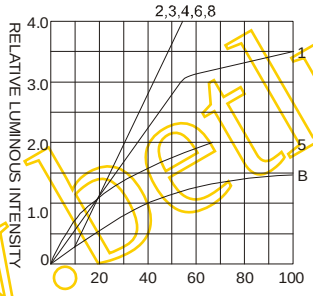


RELATIVE INTENSITY Vs WAVELENGTH(λ p)

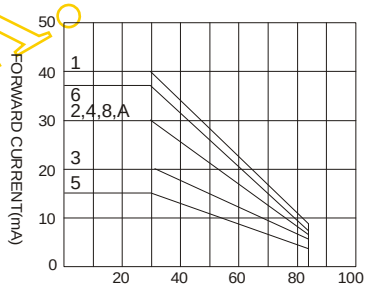
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue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



FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta(℃)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE

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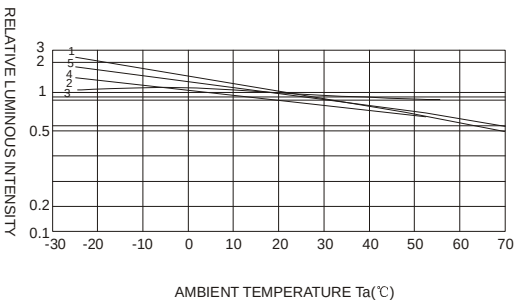
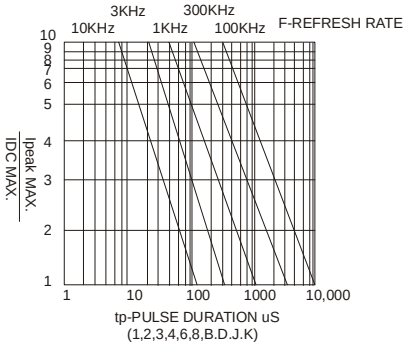
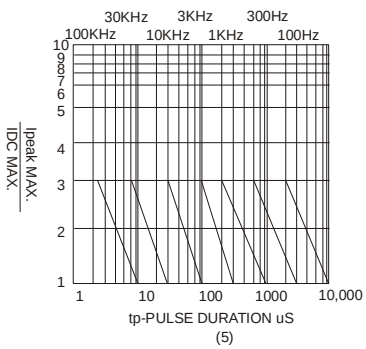


AMBIENT TEMPERATURE Ta(℃)



tp-PULSE DURATION uS
(1,2,3,4,6,8,B.D.J.K)



tp-PULSE DURATION uS
(5)

NOTE:25℃ free air temperature unless otherwise specified