百流光电
BetLux Electronics

LED DOT MATRIX

BL-M23A881XXX

Features:

- Ø 60.20mm (2.3") ¦µ5.0 dot matrix LED display, RGB COLOR
- Ø Low current operation.
- Ø Excellent character appearance.
- Ø Easy mounting on P.C. Boards or sockets.
- Ø I.C. Compatible.
- Ø ROHS Compliance.

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

Part No		Chip			VF Unit:V		Iv TYP.(mcd)
Row Cathode Column Anode	Row Anode Column Cathode	Emitted Color	Material	?P (nm)	Typ	Max	
BL-M23A881RGB-XX	BL-M23B881RGB-XX	Super Red	GaAlAs/GaAs,DH	660	1.85	2.20	280
		Green	GaP/GaP	570	2.20	2.50	250
		Ultra Blue	InGaN	470	2.70	4.20	150
BL-M23A881DUGUB-XX	BL-M23B881DUGUB-XX	Ultra Red	GaAlAs/GaAs,DDH	660	1.85	2.20	310
		Ultra Green	AlGaInP	574	2.20	2.50	380
		Ultra Blue	InGaN	470	2.70	4.20	270

--XX: Surface / Lens color：

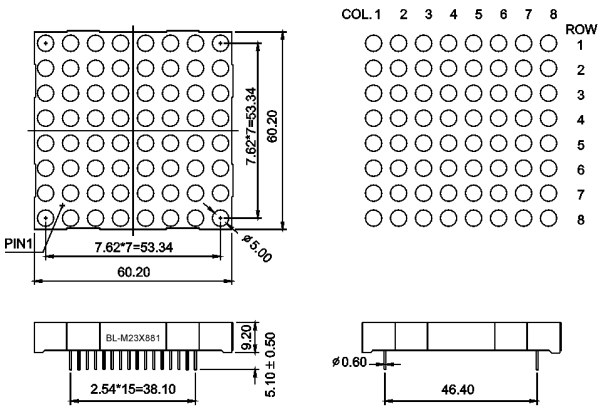
Number	0	1	2	3	4	5
Ref Surface Color	White	Black	Gray	Red	Green	
Epoxy Color	Water clear	White diffused	Red Diffused	Green Diffused	Yellow Diffused	

Absolute maximum ratings (Ta=25°C)

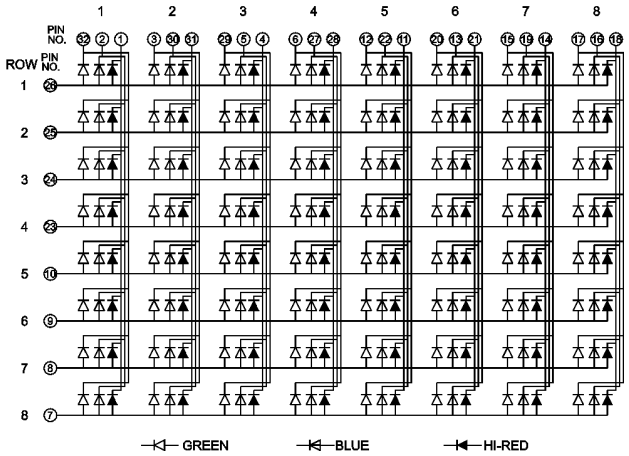
Parameter	S	G	B		D	UG	UB	Unit
Forward Current I_F	25	30	30		25	30	30	mA
Power Dissipation P_d	60	65	120		60	75	120	mW
Reverse Voltage V_R	5	5	5		5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	100		150	150	100	mA
Operation Temperature T_{OPR}	-40 to +80							°C
Storage Temperature T_{STG}	-40 to +85							°C
Lead Soldering Temperature T_{SOL}	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)							°C

Package configuration & Internal circuit diagram

BL-M23X881 Series



BL-M23B881XXX (BL-M23A881XXX C.C.)



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.

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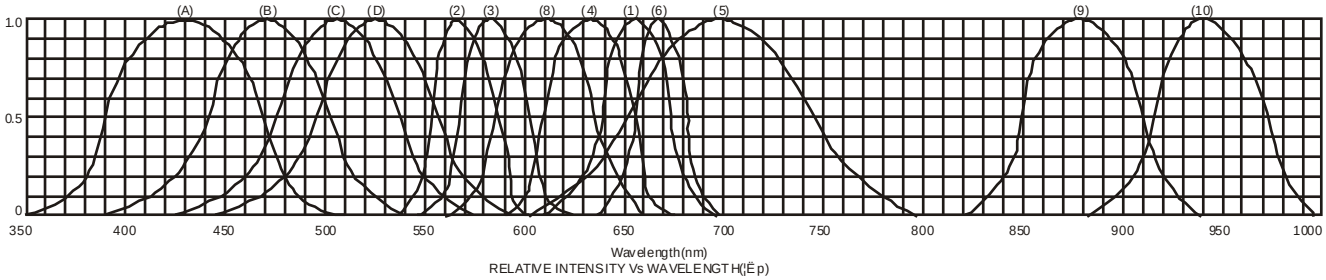
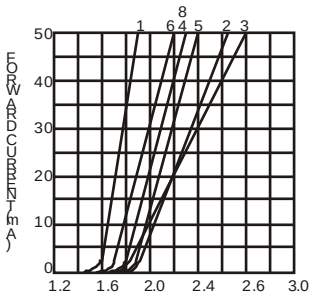
Typical electrical-optical characteristics curves:

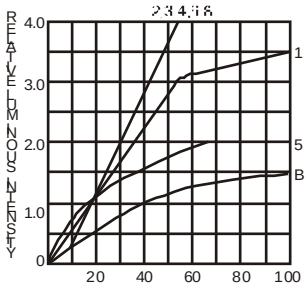


RELATIVE INTENSITY Vs WAVELENGTH(λp)

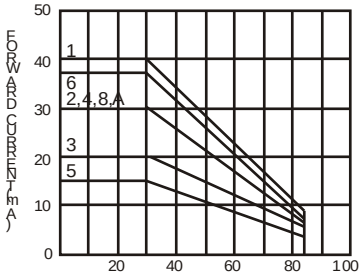
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue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



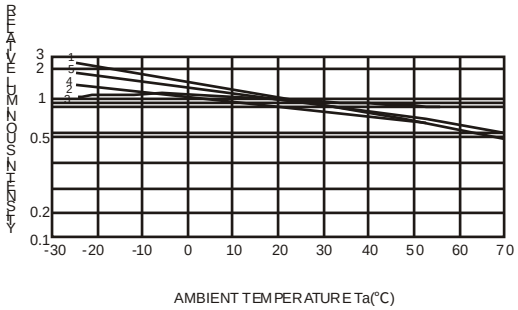
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



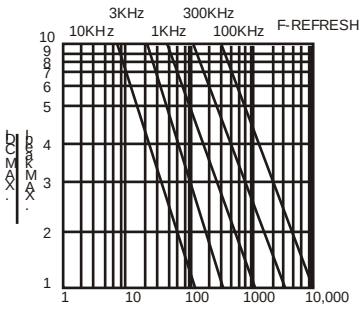
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



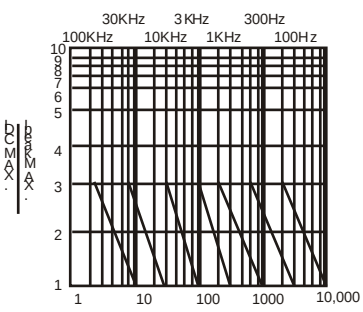
AMBIENT TEMPERATURE Ta(°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



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



tp-PULSE DURATION uS
(5)

NOTE:25°C free air temperature unless otherwise specified