

LED DOT MATRIX
BL-M23X881XX
Features:

- 60.20mm (2.3") F 5.0 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 TYP.(mcd)
Row Cathode Column Anode	Row Anode Column Cathode	Emitted Color	Material	λ _p (nm)	Typ	Max	
BL-M23C881SG-XX	BL-M23D881SG-XX	Super Red	AlGaInP	660	2.10	2.50	280
		Green	GaP/GaP	570	2.20	2.50	250
BL-M23C881EG-XX	BL-M23D881EG-XX	Orange	GaAsP/GaP	635	2.10	2.50	255
		Green	GaP/GaP	570	2.20	2.50	250
BL-M23C881DUG-XX	BL-M23D881DUG-XX	Ultra Red	AlGaInP	660	2.10	2.50	310
		Ultra Green	AlGaInP	574	2.20	2.50	380
BL-M23C881UEUG-XX	BL-M23D881UEUG-XX	Ultra Orange	AlGaInP	630	2.10	2.50	255
		Ultra Green	AlGaInP	574	2.20	2.50	380

-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)

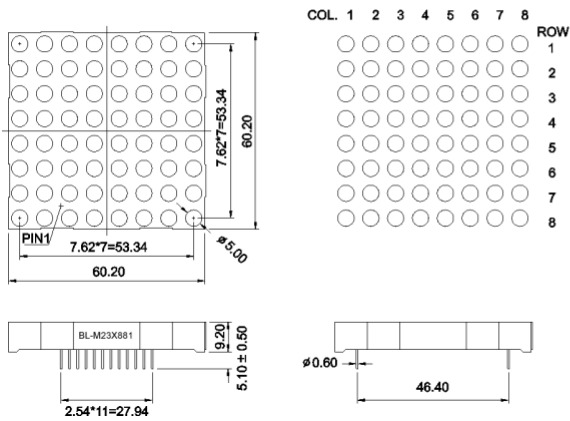
Parameter	S	G	E	D	UG	UE		Unit
Forward Current I _f	30	30	30	30	30	30		mA
Power Dissipation P _d	75	80	80	75	75	65		mW
Reverse Voltage V _R	5	5	5	5	5	5		V
Peak Forward Current I _{PF} (Duty 1/10 @ 1KHZ)	150	150	150	150	150	150		mA
Operation Temperature T _{OPR}	-40 to +80							
Storage Temperature T _{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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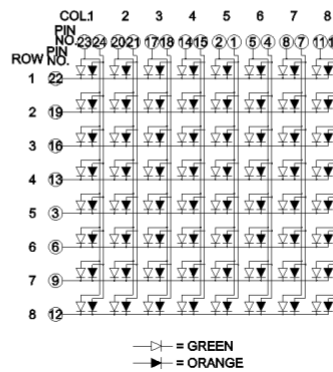
BL-M23X881XX

Package configuration & Internal circuit diagram

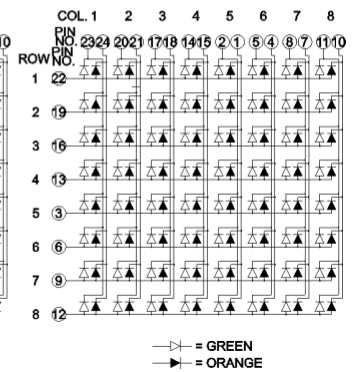
BL-M23X881 Series



BL-M23C881xx



BL-M23D881xx



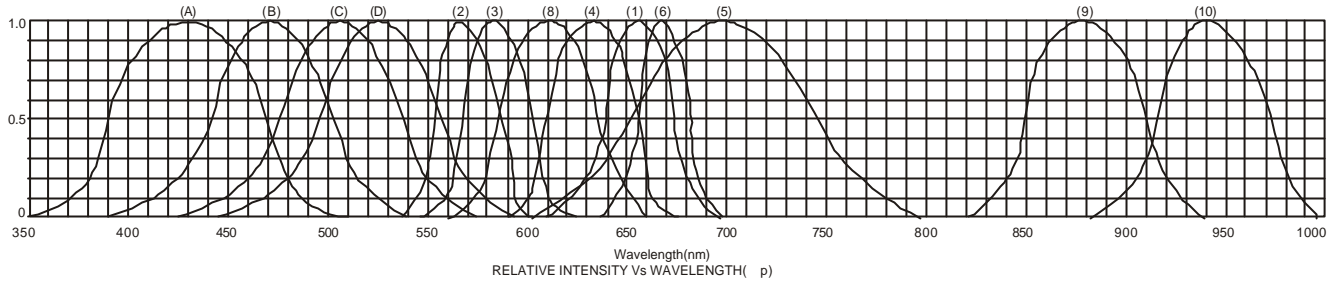
Notes:

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:



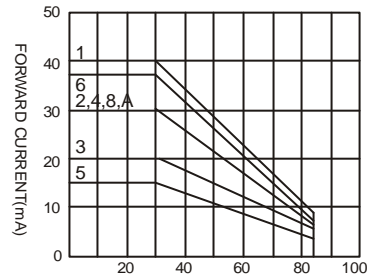
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



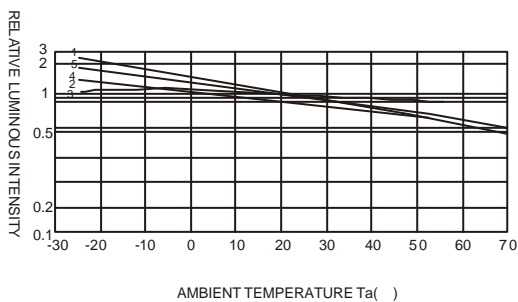
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



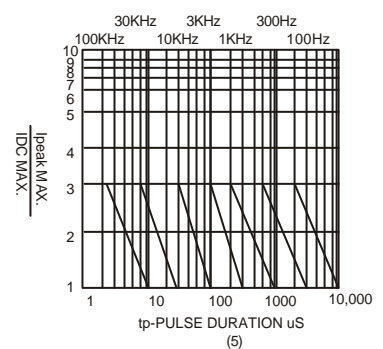
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta()



NOTE:25 free air temperature unless otherwise specified