

**LED DOT MATRIX**
**BL-M23A881XXX**
**■ Features:**

- 60.20mm (2.3") Φ5.0 dot matrix LED display, RGB 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°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	λp (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-M23A881DUGU B-XX	BL-M23B881DUGU B-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)**

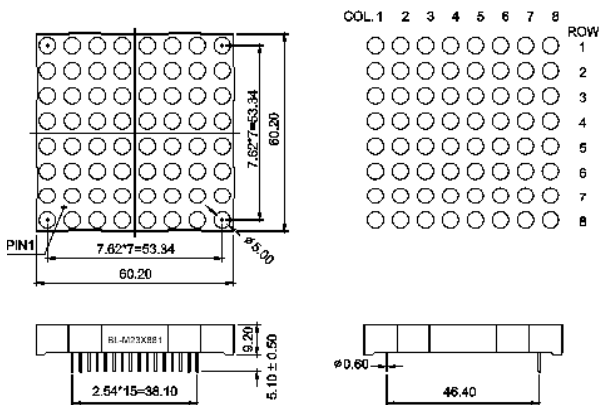
Parameter	S	G	B		D	UG	UB	Unit
Forward Current I <sub>F</sub>	25	30	30		25	30	30	mA
Power Dissipation P <sub>d</sub>	60	65	120		60	75	120	mW
Reverse Voltage V <sub>R</sub>	5	5	5		5	5	5	V
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @1KHZ)	150	150	100		150	150	100	mA
Operation Temperature T <sub>OPR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

## LED DOT MATRIX

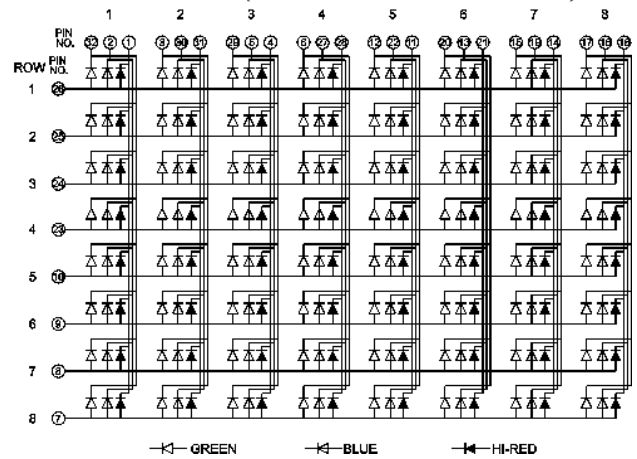
BL-M23A881XXX

### ■ Package configuration & Internal circuit diagram

#### BL-M23X881 Series



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



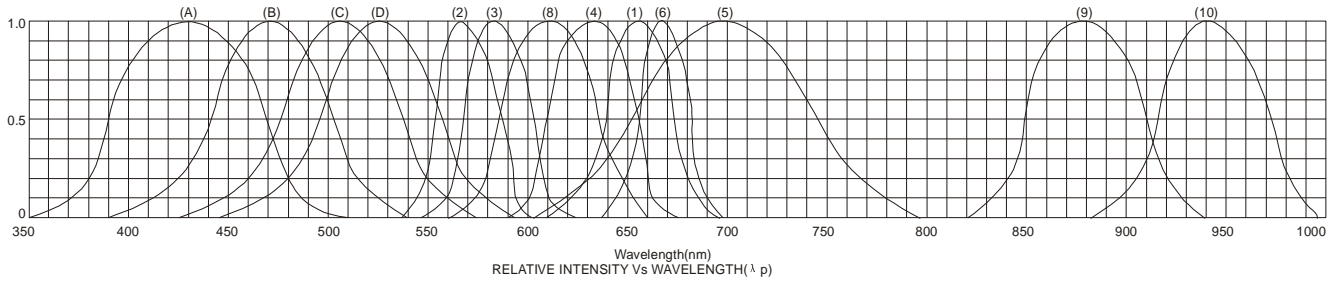
#### Notes:

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

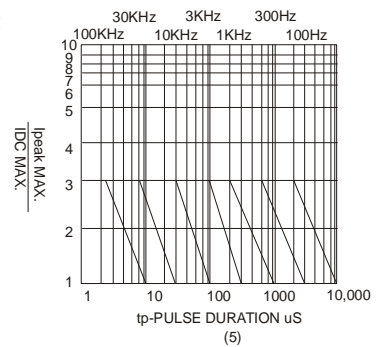
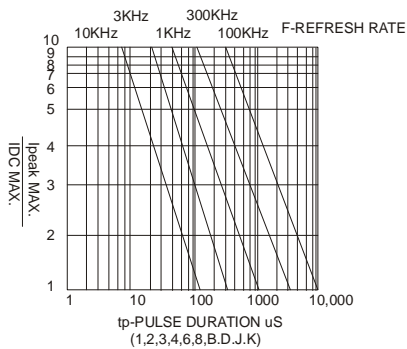
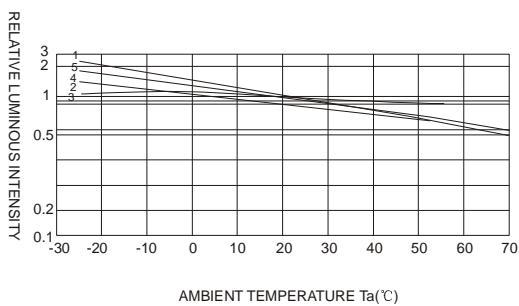
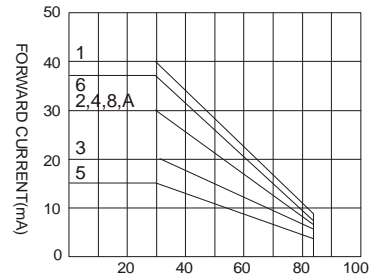
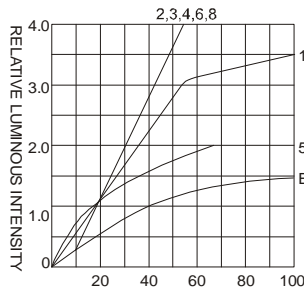
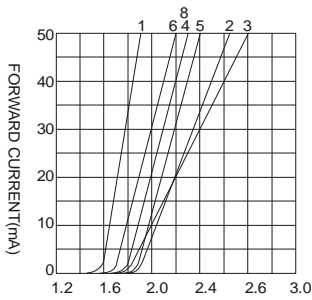
## LED DOT MATRIX

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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) - InGaN/SiC 525nm/Ultra Green    |
| (8) - GaAsP/GaP 610nm/Super Red           |                                      |



NOTE:25°C free air temperature unless otherwise specified