

LED DOT MATRIX

BL-M23X581XX

Features:

- 60.60mm (2.3") Φ 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° 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	λ_p (nm)	Typ	Max	
BL-M23A581SG-XX	BL-M23B581SG-XX	Super Red	AlGaInP	660	2.10	2.50	280
		Green	GaP/GaP	570	2.20	2.50	240
BL-M23A581EG-XX	BL-M23B581EG-XX	Red	GaAsP/GaP	635	2.10	2.50	220
		Green	GaP/GaP	570	2.20	2.50	240
BL-M23A581DUG-XX	BL-M23B581DUG-XX	Ultra Red	AlGaInP	660	2.10	2.50	320
		Ultra Green	AlGaInP	574	2.20	2.50	470
BL-M23A581UEUG-XX	BL-M23B581UEUG-XX	Ultra Red	AlGaInP	630	2.10	2.50	400
		Ultra Green	AlGaInP	574	2.20	2.50	470

■ -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)

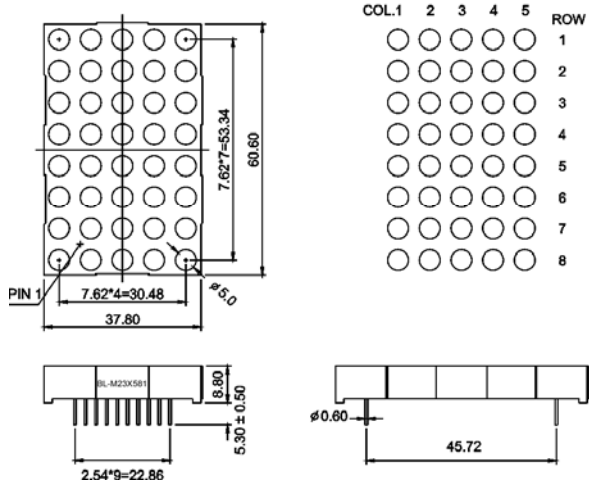
Parameter	S	G	E	D	UG	UE		Unit
Forward Current I_F	30	30	30	30	30	30		mA
Power Dissipation P_d	75	80	80	75	75	65		mW
Reverse Voltage V_R	5	5	5	5	5	5		V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	150	150	150	150		mA
Operation Temperature T_{OPR}	-40 to +80							°C
Storage Temperature T_{STG}	-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

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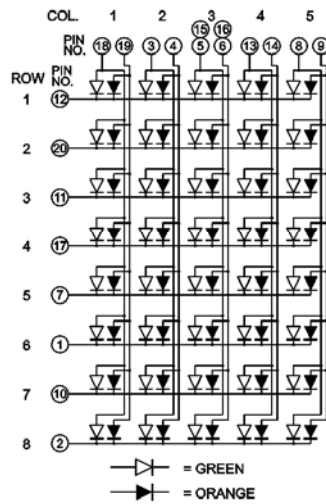
BL-M23X581XX

Package configuration & Internal circuit diagram

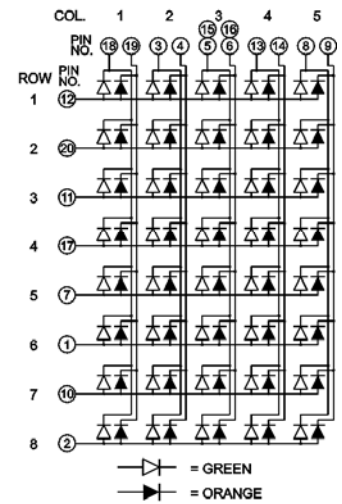
BL-M23X581 Series



BL-M23A581xx



BL-M23B581xx



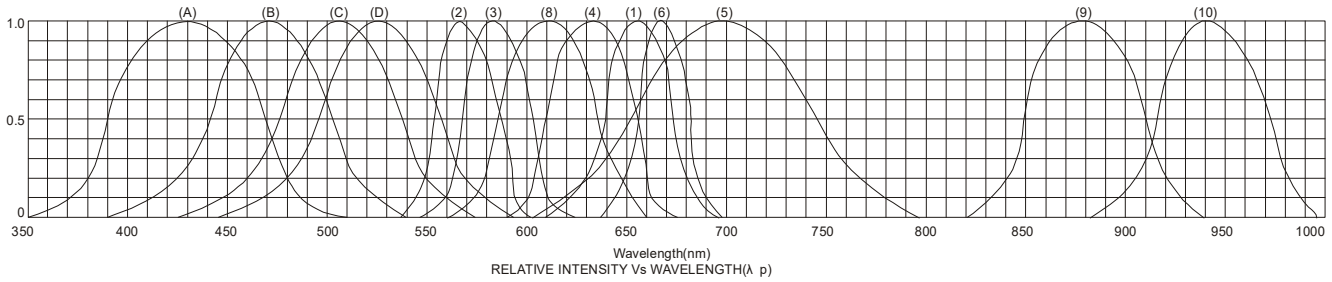
Notes:

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.

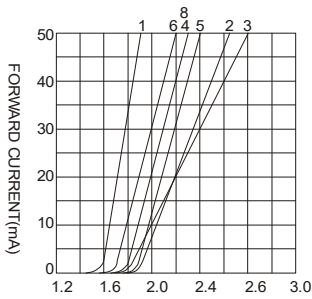
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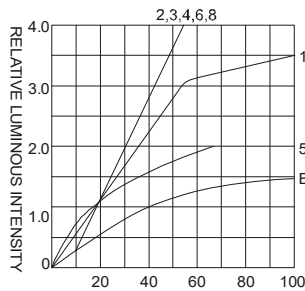
Typical electrical-optical characteristics curves:



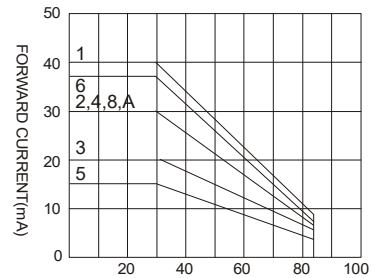
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



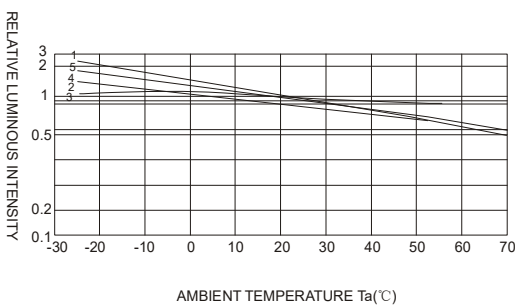
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



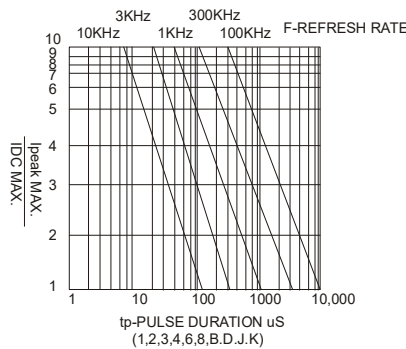
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



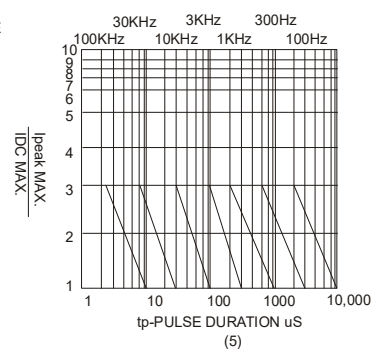
AMBIENT TEMPERATURE Ta(°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



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



(5)

NOTE: 25°C free air temperature unless otherwise specified

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■ **Packing and weighting**

