

LED DOT MATRIX
BL-M23X581XX
Features:

- Ø 60.60mm (2.3") 1/5.0 dot matrix LED display, BI-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	λ_p (nm)	Typ	Max	
BL-M23C581SG-XX	BL-M23D581SG-XX	Super Red	AlGaInP	660	2.10	2.50	280
		Green	GaP/GaP	570	2.20	2.50	240
BL-M23C581EG-XX	BL-M23D581EG-XX	Orange	GaAsP/GaP	635	2.10	2.50	220
		Green	GaP/GaP	570	2.20	2.50	240
BL-M23C581DUG-XX	BL-M23D581DUG-XX	Ultra Red	AlGaInP	660	2.10	2.50	320
		Ultra Green	AlGaInP	574	2.20	2.50	470
BL-M23C581UEUG-XX	BL-M23D581UEUG-XX	Ultra Orange	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)

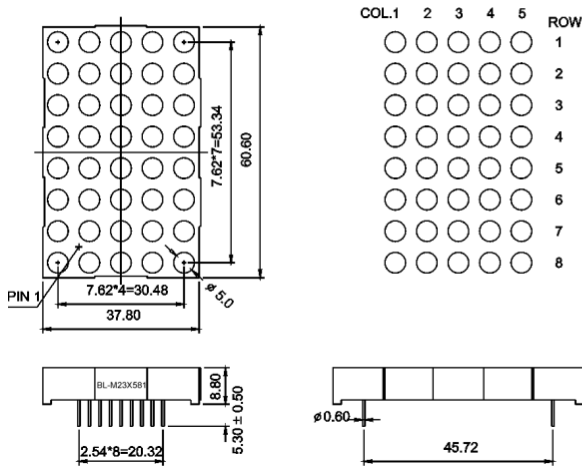
Parameter	S	G	E	D	UG	UE		Unit
Forward Current I_F	30	30	30	30	30	30		mA
Power Dissipation P_d	75	80	80	75	75	65		mW
Reverse Voltage V_R	5	5	5	5	5	5		V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	150	150	150	150		mA
Operation Temperature T_{OPR}	-40 to +80							°C
Storage Temperature T_{STG}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

LED DOT MATRIX

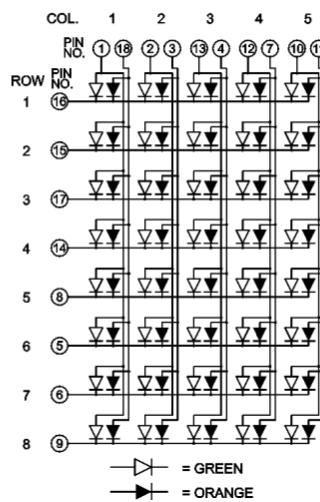
BL-M23X581XX

Package configuration & Internal circuit diagram

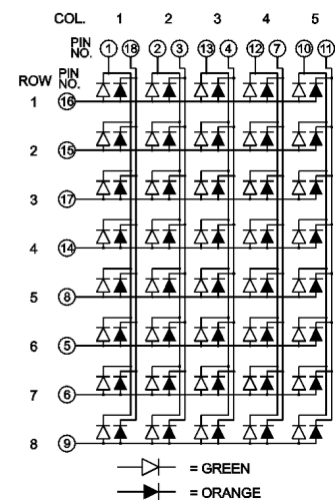
BL-M23X581 Series



BL-M23C581xx



BL-M23D581xx



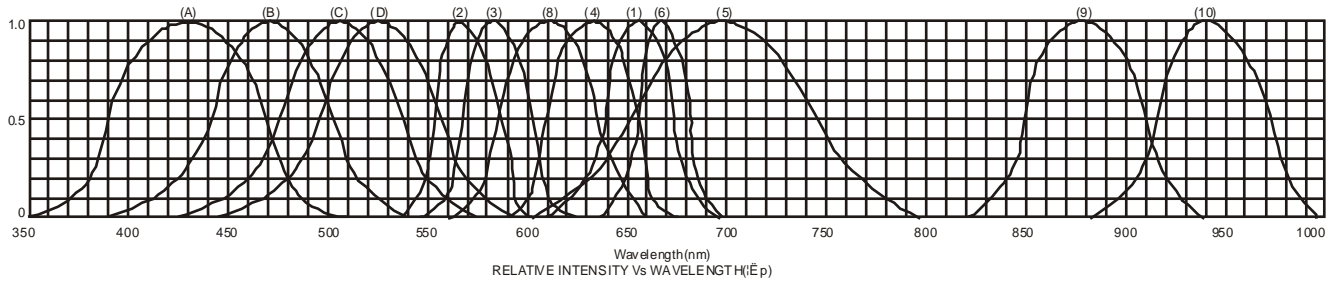
Notes:

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.

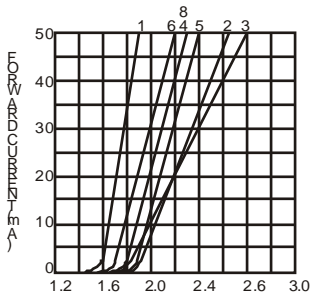
LED DOT MATRIX

BL-M23X581 XX

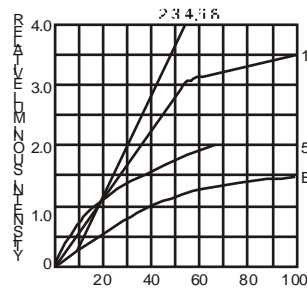
Typical electrical-optical characteristics curves:



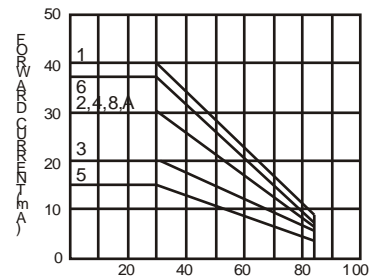
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS. FORWARD VOLTAGE



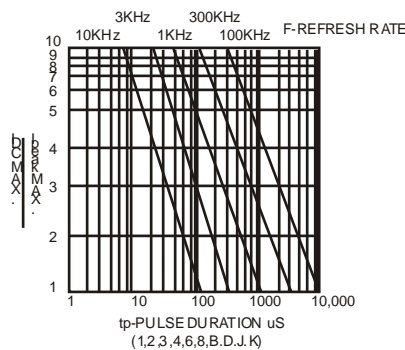
FORWARD CURRENT (mA)
RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



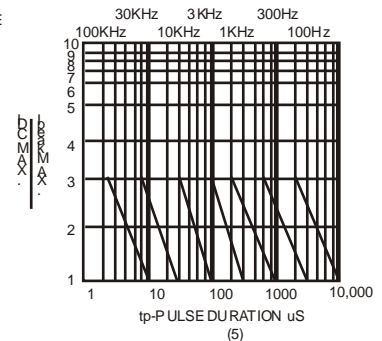
AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT TEMPERATURE



AMBIENT TEMPERATURE Ta()



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



tp-PULSE DURATION µS (5)

NOTE:25 free air temperature unless otherwise specified