

**LED DOT MATRIX**
**BL-M30X571XX**
**Features:**

- 79.80mm (3.0")  $\Phi$ 7.62 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<br>TYP.(mcd) |
|-----------------------------|-----------------------------|---------------|-----------|---------------------|-----------|------|-----------------|
| Row Cathode<br>Column Anode | Row Anode<br>Column Cathode | Emitted Color | Material  | $\lambda_p$<br>(nm) | Typ       | Max  |                 |
| BL-M30A571SG-XX             | BL-M30B571SG-XX             | Super Red     | AlGaInP   | 660                 | 2.10      | 2.50 | 140             |
|                             |                             | Green         | GaP/GaP   | 570                 | 2.20      | 2.50 | 125             |
| BL-M30A571EG-XX             | BL-M30B571EG-XX             | Orange        | GaAsP/GaP | 635                 | 2.10      | 2.50 | 110             |
|                             |                             | Green         | GaP/GaP   | 570                 | 2.20      | 2.50 | 125             |
| BL-M30A571DUG-XX            | BL-M30B571DUG-XX            | Ultra Red     | AlGaInP   | 660                 | 2.10      | 2.50 | 160             |
|                             |                             | Ultra Green   | AlGaInP   | 574                 | 2.20      | 2.50 | 190             |
| BL-M30A571UEUG-XX           | BL-M30B571UEUG-XX           | Ultra Orange  | AlGaInP   | 630                 | 2.10      | 2.50 | 150             |
|                             |                             | Ultra Green   | AlGaInP   | 574                 | 2.20      | 2.50 | 190             |

**-XX: Surface / Lens color:**

| Number                   | 0           | 1              | 2            | 3              | 4               | 5 |
|--------------------------|-------------|----------------|--------------|----------------|-----------------|---|
| <b>Ref Surface Color</b> | White       | Black          | Gray         | Red            | Green           |   |
| <b>Epoxy Color</b>       | Water clear | White diffused | Red Diffused | Green Diffused | Yellow Diffused |   |

**Absolute maximum ratings (Ta=25°C)**

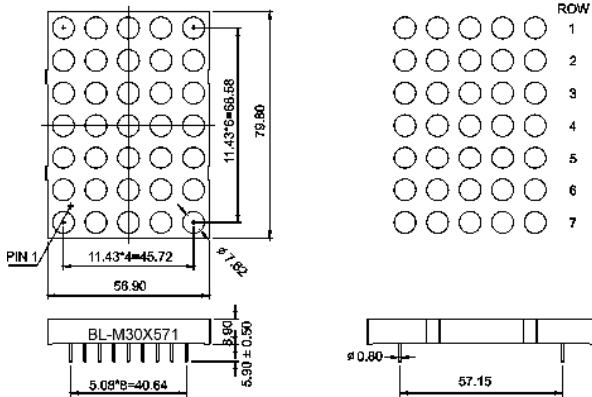
| Parameter                                          | S                                                                     | G   | E   | D   | UG  | UE  |  | Unit |
|----------------------------------------------------|-----------------------------------------------------------------------|-----|-----|-----|-----|-----|--|------|
| 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 $I_{PF}$<br>(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<br>$T_{SOL}$            | Max.260±5°C for 3 sec Max.<br>(1.6mm from the base of the epoxy bulb) |     |     |     |     |     |  | °C   |

## LED DOT MATRIX

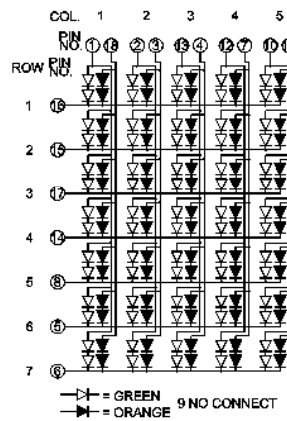
BL-M30X571XX

### ■ Package configuration & Internal circuit diagram

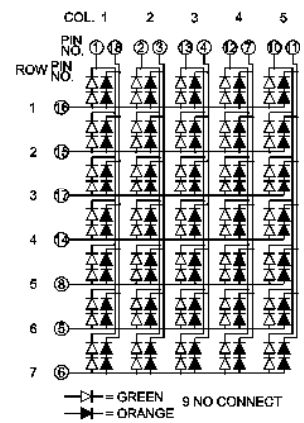
BL-M30X571 Series



BL-M30A571xx



BL-M30B571xx



#### 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-M30X571XX**

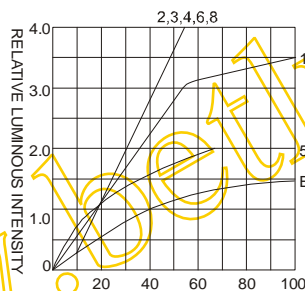
■ **Typical electrical-optical characteristics curves:**



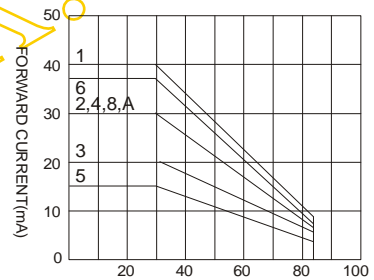
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



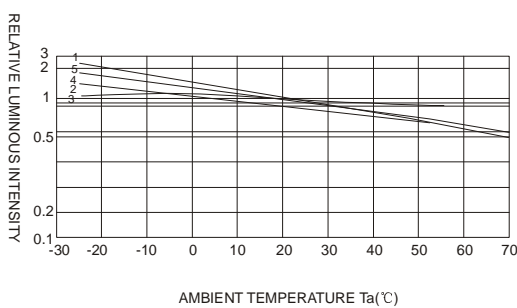
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



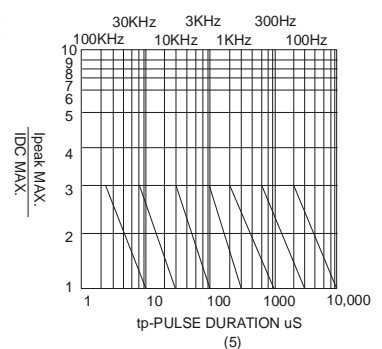
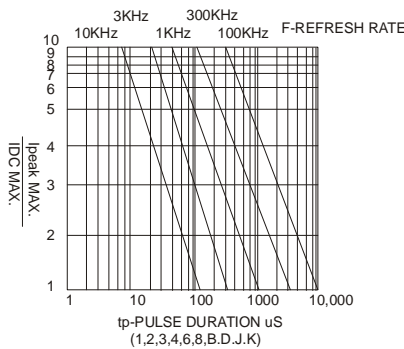
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



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



AMBIENT TEMPERATURE Ta(°C)



NOTE:25°C free air temperature unless otherwise specified