

## LED NUMERIC DISPLAY, 1 DIGIT

BL-S100X-12XX

### ■ Features:

- 25.40mm (1.0") Single digit numeric display series, BI-COLOR TYPE
- 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) |
|--------------------|--------------------|---------------|-----------|---------------------|-----------|------|--------------|
| Common Cathode     | Common Anode       | Emitted Color | Material  | λ <sub>P</sub> (nm) | Typ       | Max  |              |
| BL-S100C-12SG-XX   | BL-S100D-12SG-XX   | Super Red     | AlGaInP   | 660                 | 2.10      | 2.50 | 50           |
|                    |                    | Green         | GaP/GaP   | 570                 | 2.20      | 2.50 | 65           |
| BL-S100C-12EG-XX   | BL-S100D-12EG-XX   | Orange        | GaAsP/GaP | 635                 | 2.10      | 2.50 | 65           |
|                    |                    | Green         | GaP/GaP   | 570                 | 2.20      | 2.50 | 65           |
| BL-S100C-12DUG-XX  | BL-S100D-12DUG-XX  | Ultra Red     | AlGaInP   | 660                 | 2.10      | 2.50 | 75           |
|                    |                    | Ultra Green   | AlGaInP   | 574                 | 2.20      | 2.50 | 75           |
| BL-S100C-12UEUG-XX | BL-S100D-12UEUG-XX | Ultra Orange  | AlGaInP   | 630                 | 2.10      | 2.50 | 70           |
|                    |                    | Ultra Green   | AlGaInP   | 574                 | 2.20      | 2.50 | 75           |

■ -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)

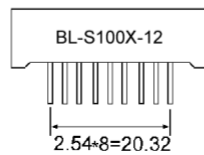
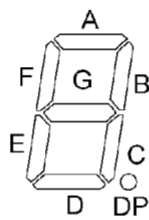
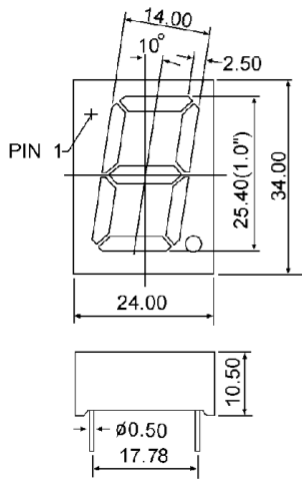
| Parameter                                              | S                                                                | G   | E   | D   | UG  | UE  |  | U nit |
|--------------------------------------------------------|------------------------------------------------------------------|-----|-----|-----|-----|-----|--|-------|
| Forward Current I <sub>F</sub>                         | 30                                                               | 30  | 30  | 30  | 30  | 30  |  | mA    |
| Power Dissipation P <sub>d</sub>                       | 75                                                               | 80  | 80  | 75  | 75  | 65  |  | 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 | 150 | 150 | 150 | 150 |  | mA    |
| Operation Temperature T <sub>OPR</sub>                 | -40 to +80                                                       |     |     |     |     |     |  |       |
| Storage Temperature T <sub>STG</sub>                   | -40 to +85                                                       |     |     |     |     |     |  |       |
| Lead Soldering Temperature T <sub>SOL</sub>            | Max.260±5 for 3 sec Max. (1.6mm from the base of the epoxy bulb) |     |     |     |     |     |  |       |

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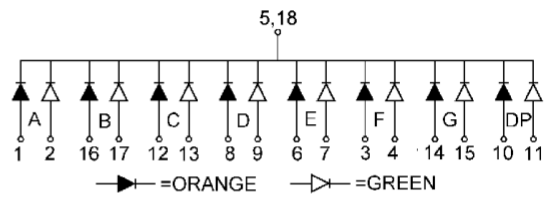
BL-S100X-12XX

### ■ Package configuration & Internal circuit diagram

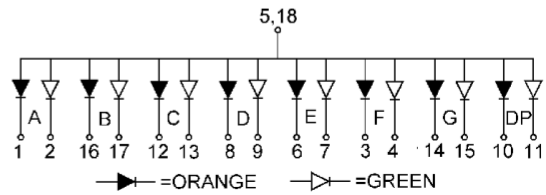
#### BL-S100X-12 Series



#### BL-S100C-12xx



#### BL-S100D-12xx



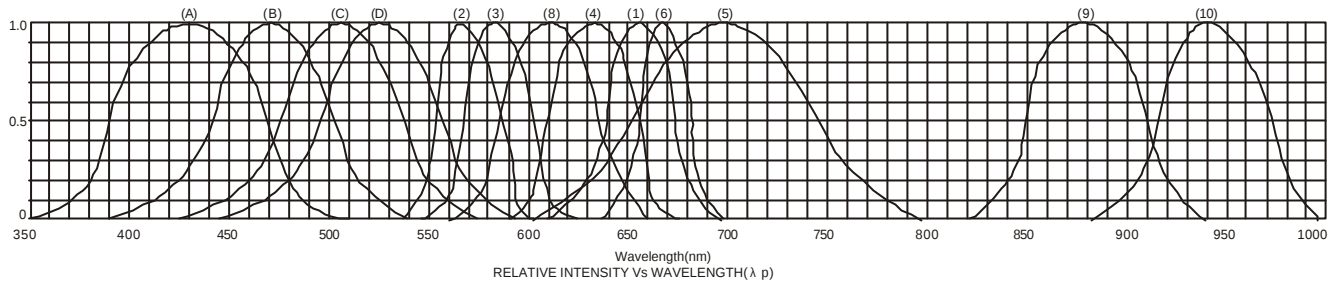
#### Notes:

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.

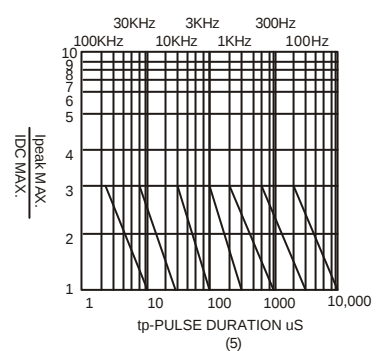
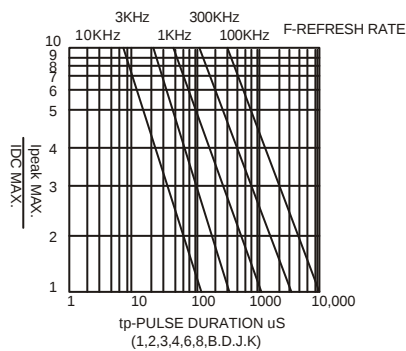
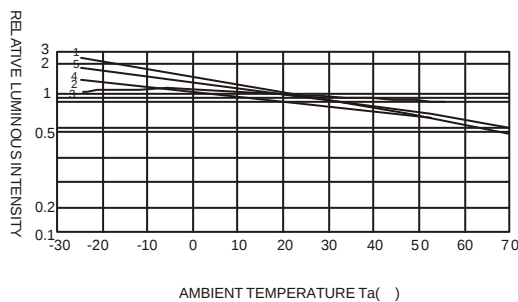
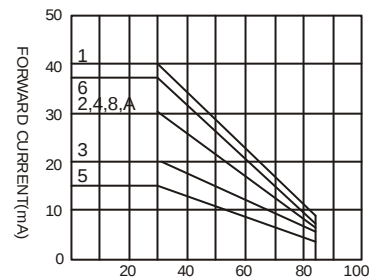
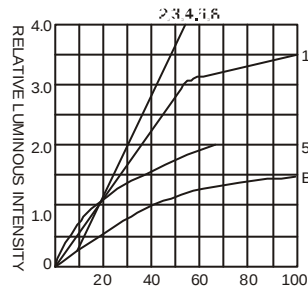
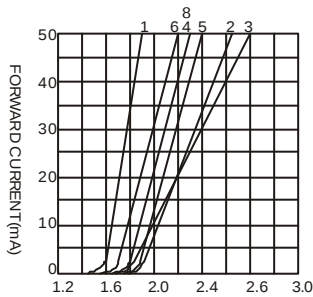
## LED NUMERIC DISPLAY, 1 DIGIT

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



NOTE:25 free air temperature unless otherwise specified