**LED NUMERIC DISPLAY, 1 DIGIT**

BL-S180X-11XX

**Features:**

- 45.00mm (1.8") 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°C)** (Test Condition: IF=20mA)

| Part No | | Chip | | | VF Unit:V | | Iv |
|---|---|---|---|---|---|---|---|
| **Common Cathode** | **Common Anode** | **Emitted Color** | **Material** | **λP (nm)** | **Typ** | **Max** | **TYP.(mcd)** |
| BL-S180C-11SG-XX | BL-S180D-11SG-XX | Super Red | AlGaInP | 660 | 2.10 | 2.50 | 110 |
| | | Green | GaP/GaP | 570 | 2.20 | 2.50 | 120 |
| BL-S180C-11EG-XX | BL-S180D-11EG-XX | Red | GaAsP/GaP | 635 | 2.10 | 2.50 | 120 |
| | | Green | GaP/GaP | 570 | 2.20 | 2.50 | 120 |
| BL-S180C-11DUG-XX | BL-S180D-11DUG-XX | Ultra Red | AlGaInP | 660 | 2.10 | 2.50 | 165 |
| | | Ultra Green | AlGaInP | 574 | 2.20 | 2.50 | 125 |
| BL-S180C-11UEUG-XX | BL-S180D-11UEUG-XX | Ultra Red | AlGaInP | 630 | 2.10 | 2.50 | 165 |
| | | Ultra Green | AlGaInP | 574 | 2.20 | 2.50 | 165 |

■ -XX: Surface / Lens color:

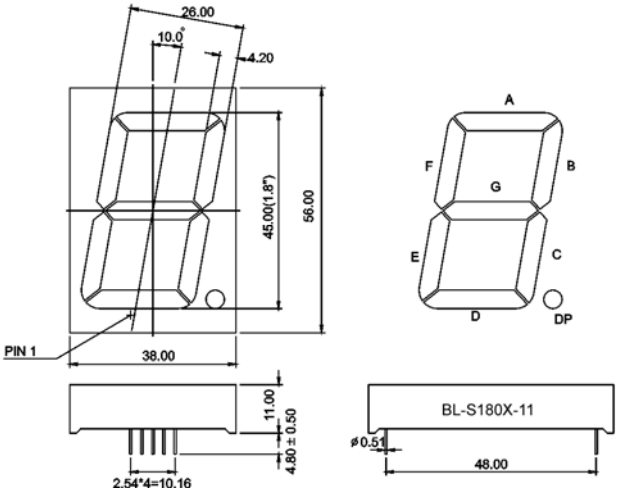
| **Number** | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Ref Surface Color** | White | Black | Gray | Red | Green | |
| **Epoxy Color** | Water clear | White diffused | Red Diffused | Green Diffused | Yellow Diffused | |

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

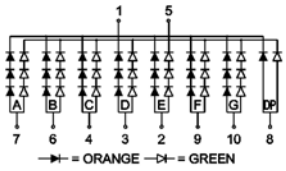
| Parameter | S | G | E | D | UG | UE | | | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Forward Current $I_F$ | 30 | 30 | 30 | 30 | 30 | 30 | | | mA |
| Power Dissipation $P_d$ | 75 | 80 | 80 | 75 | 75 | 65 | | | mW |
| Reverse Voltage $V_R$ | 5 | 5 | 5 | 5 | 5 | 5 | | | V |
| Peak Forward Current $I_{PF}$ (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 |

## ■ Package configuration & Internal circuit diagram

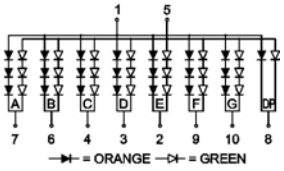
BL-S180X-11 Series



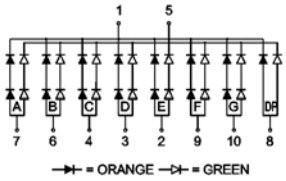

BL-S180A-11xx



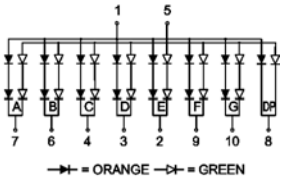

BL-S180B-11xx




BL-S180C-11xx

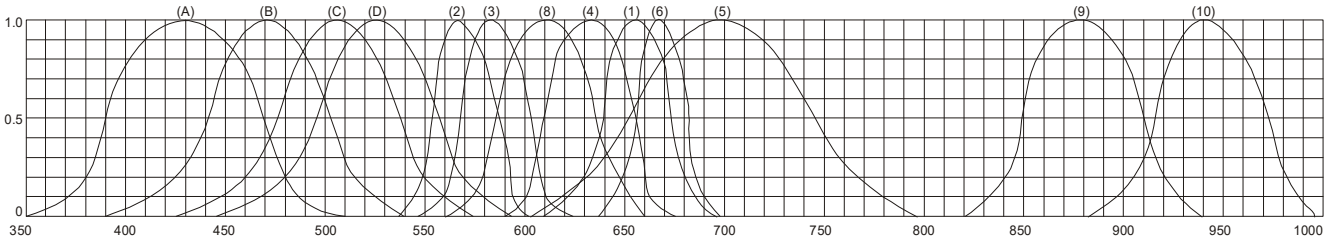



BL-S180D-11xx



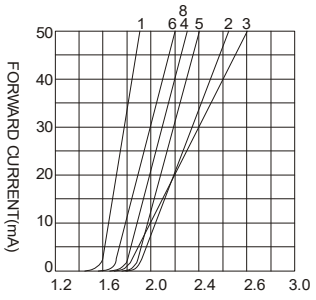

Notes:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.25(0.01")unless otherwise noted.
3. Specifications are subject to change without notice.

## ■ Typical electrical-optical characteristics curves:

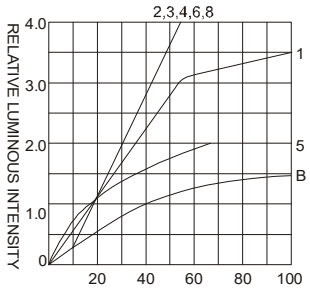


RELATIVE INTENSITY Vs WAVELENGTH(λ p)

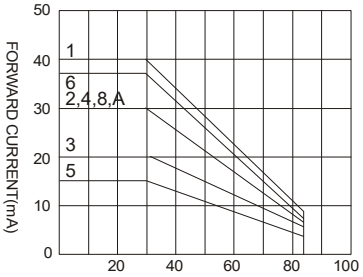
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue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



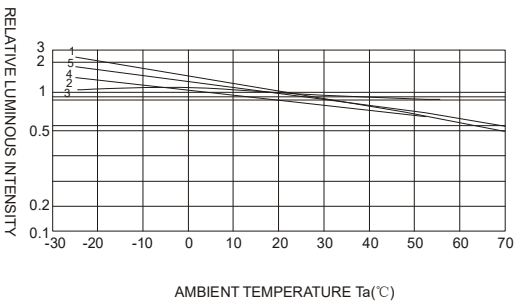
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE

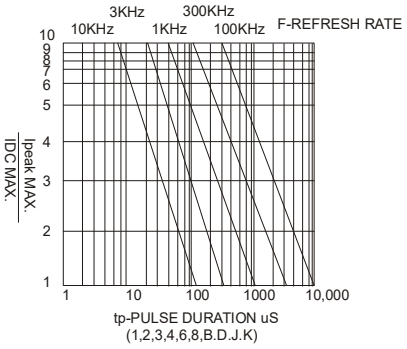


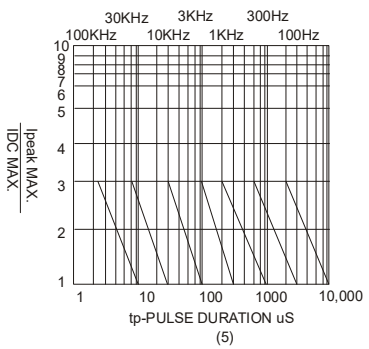
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta(℃)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE




NOTE:25℃ free air temperature unless otherwise specified

■ Packing and weighting

