

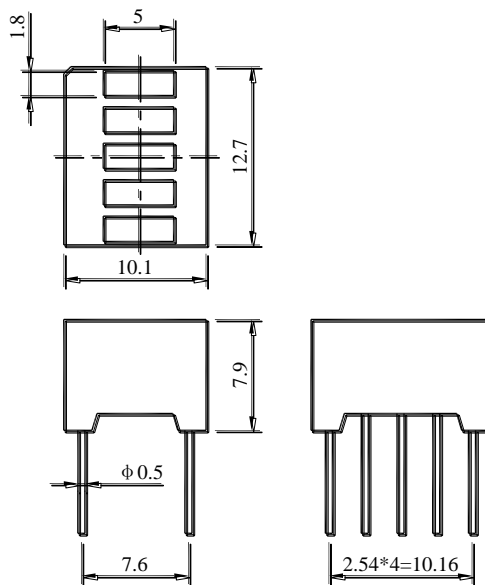
Data Sheet for Bar and Plane Display

10×12 mm 5 Bar Graph Display



Part No.	HBUG-55		
Emitted Color	Chip Material	Lens Color	
Green	GaP	White Diffused	

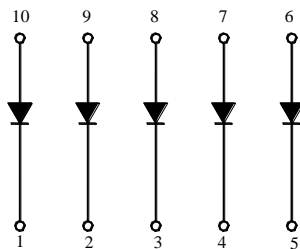
Package Dimensions :



Notes :

- 1) All dimensions are in millimetres (mm), Tolerance is ± 0.25 mm unless otherwise noted.
- 2) Specifications are subject to change without notice.

Internal Circuit Diagram :



Features :

Emitting area : 5.0×1.8×5 (mm)

High efficiency, low power consumption.

Excellent characters appearance.

Solid state reliability.

Categorized for luminous intensity.

This product doesn't contain restriction substance, comply RoHS standard

Descriptions :

The HBUG-55 is 5 bar graph array displays.

These devices are made with white segments and black surface.

Absolute Maximum Rating of Each Segment (Ta = 25 °C)

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation/seg.	P _M	60	mW
Peak Forward Current /seg. (Duty 1/10@ 1KHz)	I _{FP}	70	mA
Continuous Forward Current/seg. ①	I _F	20	mA
Recommend Use Current/seg. ②	I _F	5 ~ 10	mA
Reverse Voltage	V _R	5	V
Operation Temperature	T _{opr}	- 20 °C ~ 70 °C	°C
Storage Temperature	T _{stg}	- 20 °C ~ 85 °C	°C
Soldering Temperature (time≤5 seconds.) ③	T _{sol}	260±5	°C

Notes : 1. This is the limit current. It is not allowed to use when the product work continuously.

2. It is recommended that the product is driven by TTL, CMOS.

3. Soldering time≤5 seconds.

Electron-Optical Characteristics of Each Segment (Ta = 25 °C)

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Luminous Intensity/seg.	I _v	4.5		mcd	I _F =20mA
Forward Voltage/seg.	V _F	2.2	2.5	V	I _F =20mA
Reverse Current/seg.	I _R		50	μA	V _R =5V
Peak Wavelength	λ _p	568		nm	I _F =20mA
Spectral Line Half Width	Δλ	30		nm	I _F =20mA

Reliability Test Items and Conditions

Test Item	Test Conditions	Duration	Sample	Ac/Re
Temperature Cycle	-40°C(30 min.) ~ 25°C(5 min.) ~ 100°C(30 min.) ~ 25°C(5 min.)	20 cycles	20	0/1
High Temp. Storage	Ta=100°C	1,000 hours	20	0/1
Temp. & Humidity Test	Ta=85°C, RH=85%	1,000 hours	20	0/1
Low Temp. Storage	Ta=-40±5°C	1,000 hours	20	0/1
Operating Life Test	Ta=25±5°C, DC IF=20mA	1,000 hours	20	0/1
Solder Heat	Tsol=260±5°C, 5sec	1 time	20	0/1
Thermal Shock	-40 ±5°C → 100 ±5°C 15 min. 15 min.	20 cycles	20	0/1

Typical Characteristic Curves :

