





Drawing No.	*Rev.	Date	Page
BF5H45G-YHR-100mA	B	2022/02/24	1/3

# APPROVAL SHEET

Part No: **BF5H45G-YHR-100mA**

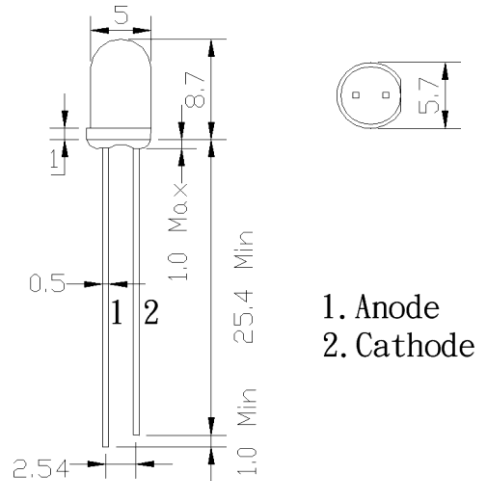
NOTE : Green Part

MAKER			CUSTOMER	
				
R&D	QA	Sales	Checked	Approved
				

Prepared	Checked	Approved
Rachel Lee	Sky Lin	Kenneth Wu

### DESCRIPTION:

Device Type : BF5H45G-YHR-100mA  
 Dice Material : AlGaAs  
 Light Color : InfraRed 850nm  
 Lens Color : Water Clear  
 Lens Dimension : 5 mm



1. Anode  
2. Cathode

All epoxy resin dimension are in millimeter  
tolerance is  $\pm 0.2\text{mm}$

### Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Max.	Unit
DC Forward Current	120	mA
Reverse Voltage	5	V
Power Dissipation	240	mW
Operating Temperature	Topr : -40 ~ +80	$^\circ\text{C}$
Storage Temperature	Tstr : -40 ~ +100	$^\circ\text{C}$
Solder DIP (MAX. 5 seconds, 1.6mm from body) Temperature $260^\circ\text{C}$		

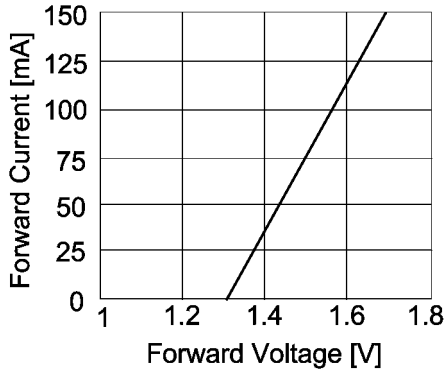
### Electrical and Optical Characteristics at $T_a=25^\circ\text{C}$

Symbol	Description	Test Condition	Min.	Typ.	Max.	Unit
$V_F$	Forward Voltage	$I_F = 100\text{mA}$		1.6	2.0	V
IR	Reverse Current	$V_R = 5\text{V}$	-	-	10	$\mu\text{A}$
$\lambda_P$	Peak Emission Wavelength	$I_F = 100\text{mA}$	-	850	-	nm
$\Delta\lambda$	Spectral Line Halfwidth	$I_F = 100\text{mA}$	-	40	-	nm
$2\theta_{1/2}$	Viewing Angle	$I_F = 100\text{mA}$	-	45	-	Deg.
$P_o$	Radiant Power	$I_F = 100\text{mA}$	60	-	95	mW

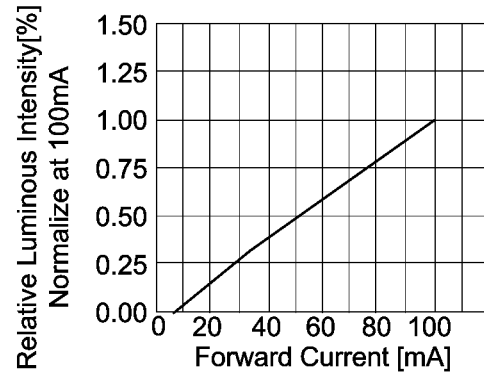
- Note:
- 1.The lead should be formed up to 5mm from the body of device without forming stress.
  2. Soldering shall be performed after lead forming.
  3. All dimensions are in millimeters
  4. Suggestion: the better current for this device is less than 80mA.

## LED LAMP Technical Data

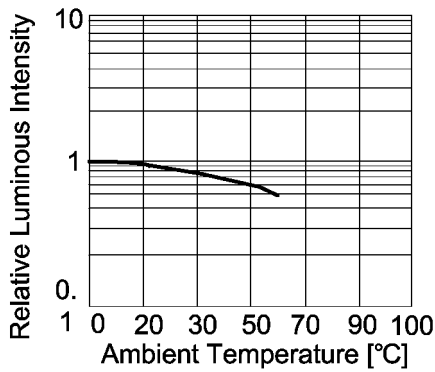
### Typical Optical-Electrical Characteristic Curves



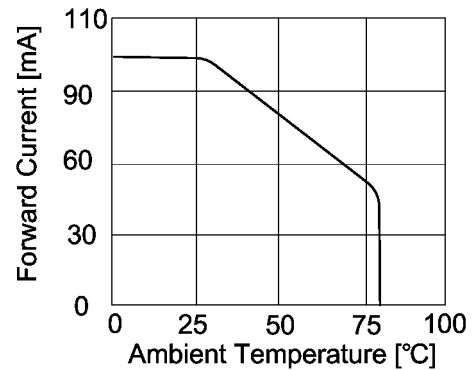
**Forward Current  
Vs. Forward Voltage**



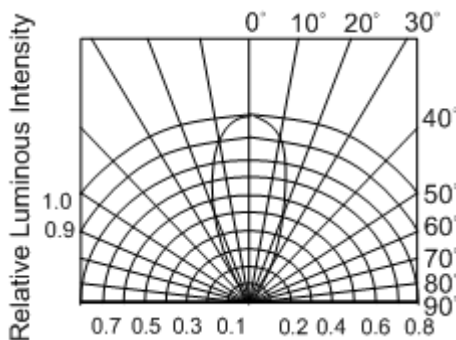
**Luminous Intensity  
Vs. Forward Current**



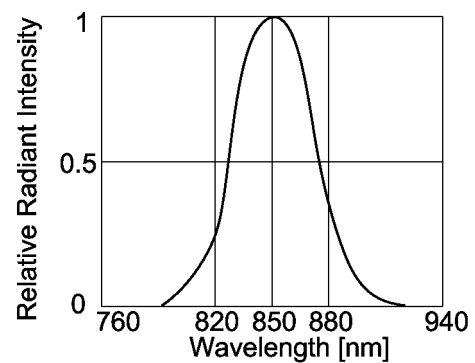
**Luminous Intensity  
Vs. Ambient Temperature**



**Forward Current  
Vs. Ambient Temperature**



**Radiation Pattern**



**Relative Luminous Intensity  
Vs. Wavelength**