

# GL1 07□ 8 Series

## 7-Dots Array LED

### Model No.

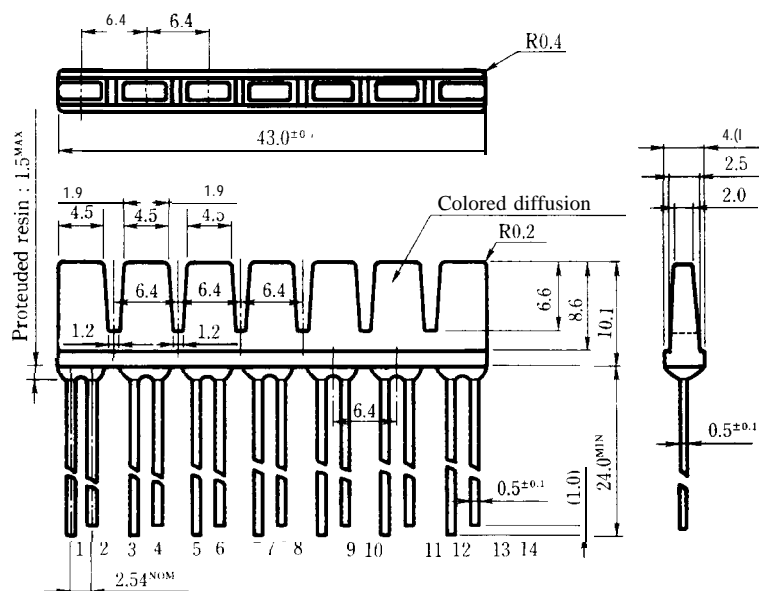
GL107R8 Red GaP  
GL107H8 Yellow GaAsP/GaP

### Features

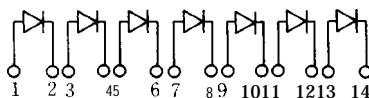
1. Radiation shape per dots  $2.0 \times 4.5\text{mm}$
2. Outline dimensions  $4.0 \times 43.0\text{mm}$
3. 7 dots all resin mold type

### Outline Dimensions

(Unit: mm)



Internal connection diagram

Unspecified tolerance :  $\pm 0.2\text{mm}$

## GL107U8

■ Absolute Maximum Ratings<sup>※1</sup>

(Ta=25°C)

Parameter	Symbol	GL107R8	GL107H8				Unit	
Power dissipation	P	23	84				mW	
Continuous forward current	I <sub>F</sub>	10	30				mA	
※2 Peak forward current	I <sub>FM</sub>	50	50				mA	
Derating factor	DC	—	0.13	0.40			mA/°C	
	Pulse	—	0.67	0.67			mA/°C	
Reverse voltage	V <sub>R</sub>	5	5				v	
Operating temperature	T <sub>opr</sub>	-25 to +85						°C
Storage temperature	T <sub>stg</sub>	-25 to +100						°C
※3 Soldering temperature	T <sub>sol</sub>	260 (within 5 seconds)						°C

※1 Per dot

※2 Duty ratio= 1/10, Pulse width =0.1ms

※3 At the position of 1.6 mm from the bottom face of resin package

**GL107R8(Red)**

■ **Electro-optical Characteristics** \*1

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	GL107R8	I <sub>F</sub> = 5mA	—	1.9	2.3	V
*4 Luminous intensity	I <sub>v</sub>	GL107R8	I <sub>F</sub> = 5mA	0.3	0.9	—	mcd
Peak emission wavelength	λ <sub>p</sub>	GL107R8	I <sub>F</sub> = 5mA	—	695	—	nm
Spectrum radiation bandwidth	Δλ	GL107R8	I <sub>F</sub> = 5mA	—	100	—	nm
Reverse current	I <sub>R</sub>	GL107R8	V <sub>R</sub> = 4V	—	—	10	μA
Response frequency	f <sub>c</sub>	GL107R8	—	—	4	—	MHz

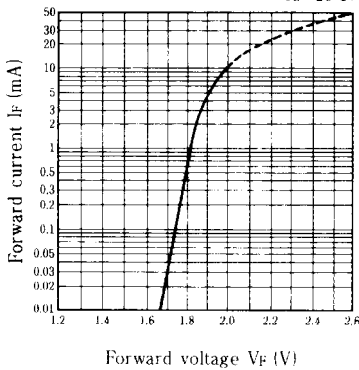
\*1 Per dot

\*4 Tolerance: ±30%

■ **Characteristics Diagrams**

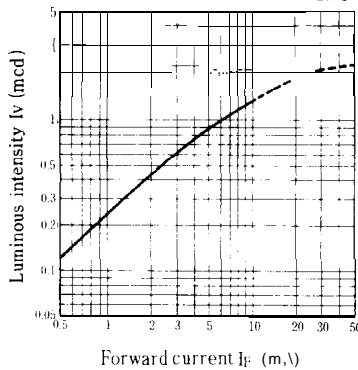
Forward Current vs. Forward Voltage

(Ta = 25°C)

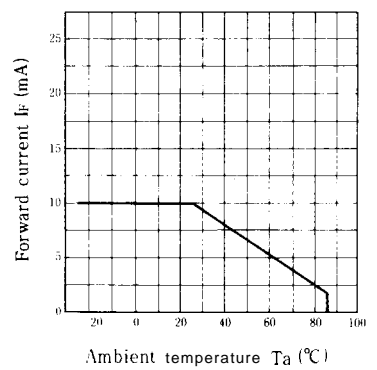


Luminous Intensity vs. Forward Current

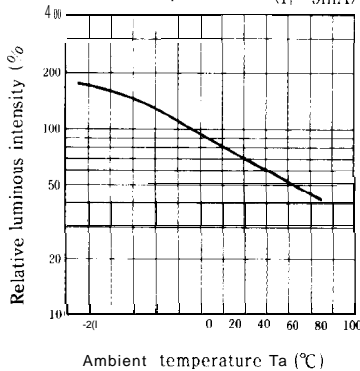
(Ta = 25°C)



Forward Current Derating Curve

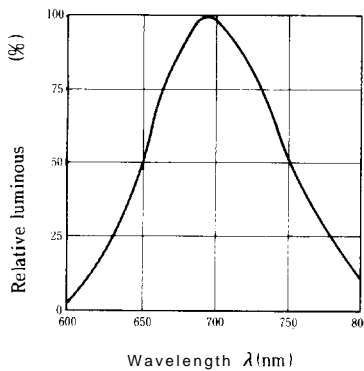


Relative Luminous Intensity vs. Ambient Temperature (I<sub>F</sub> = 5mA)



Spectrum Distribution

(Ta = 25°C)



GL107H8(Yellow)

■ Electro-optical Characteristics ※1

(Ta = 25°C)

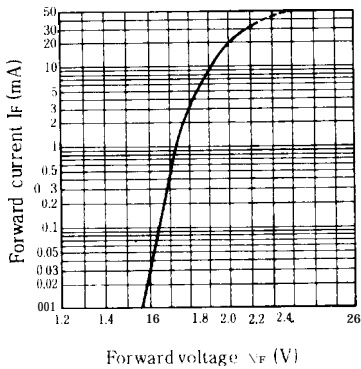
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	GL107H8	$I_F = 20\text{mA}$	—	2.0	2.8	V
※4 Luminous intensity		GL107H8	$I_F = 20\text{mA}$	1.5	5.0	—	
Peak emission wavelength	$\lambda_p$	GL107H8	$I_F = 20\text{mA}$	—	585	—	nm
Spectrum radiation bandwidth		$\Delta\lambda$	GL107H8	$I_F = 20\text{mA}$	—	30	
Reverse current	$I_R$	GL107H8	$V_R = 4\text{V}$	—	—	10	$\mu\text{A}$
Response frequency		$f_c$	GL107H8	—	—	4	

※1 Per dot

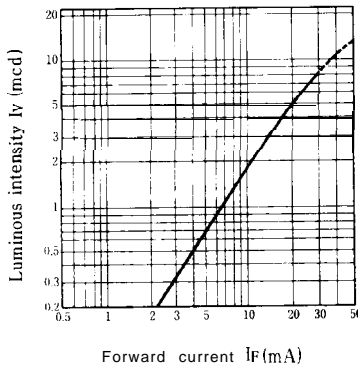
※4 Tolerance:  $\pm 30\%$

■ Characteristics Diagrams

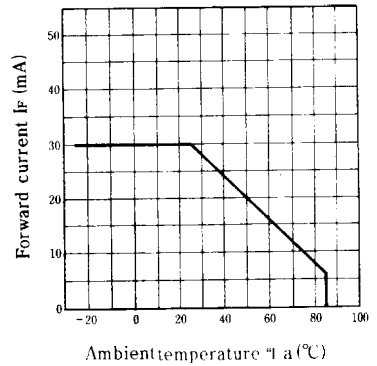
Forward Current vs. Forward Voltage (Ta = 25°C)



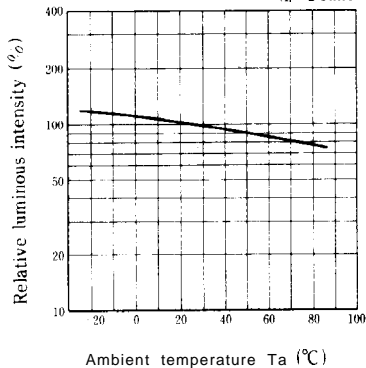
Luminous Intensity vs. Forward Current (Ta = 25°C)



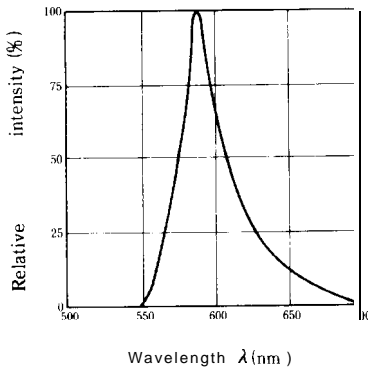
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature (If = 20mA)



Spectrum Distribution (Ta = 25°C)



7