

## GL112□9 Series

## 12-Dots Array LED

## ■ Model No.

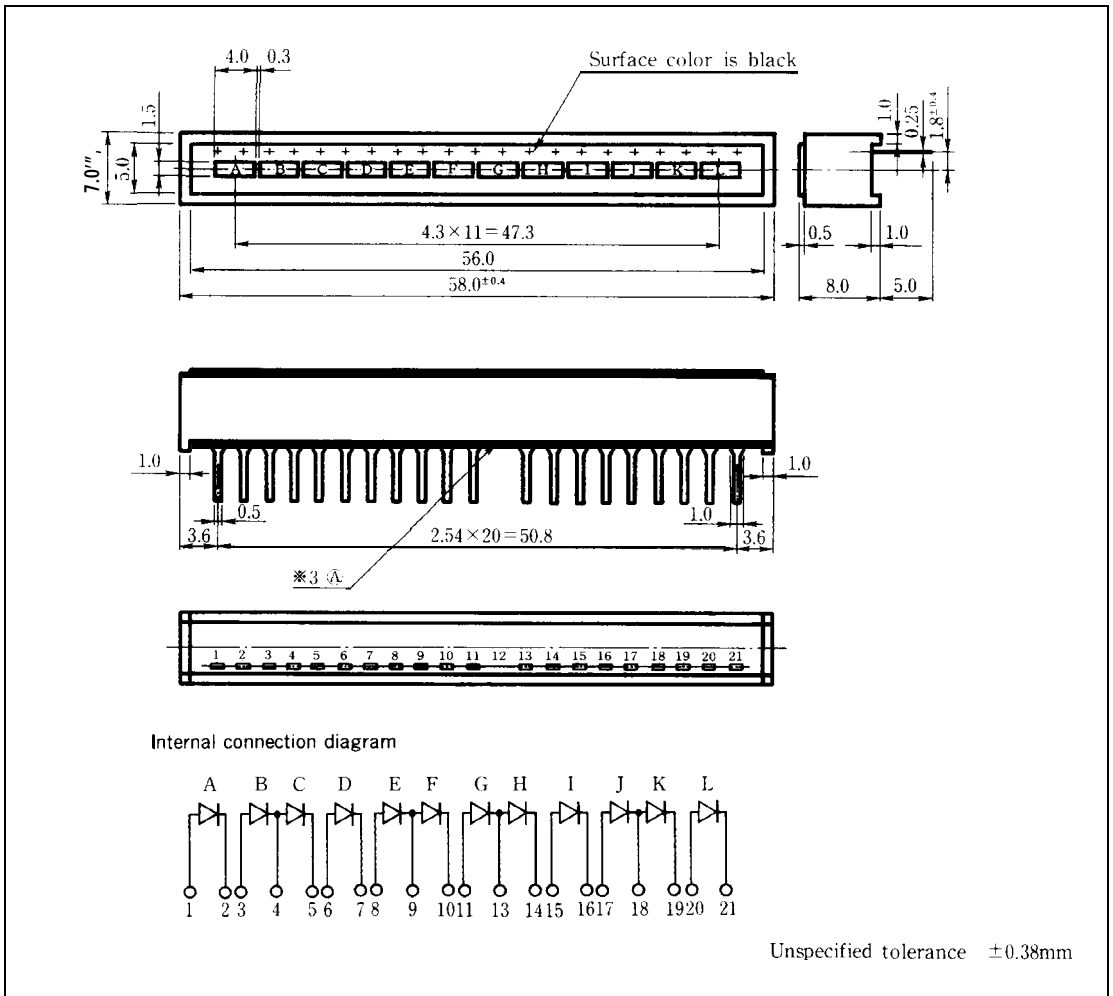
GL112R9 Red GaP  
GL112H9 Yellow GaAsP/GaP

## ■ Features

1. Radiation shape per dots  $1.5 \times 4.0\text{mm}$
2. Outline dimensions  $7.0 \times 58.0\text{mm}$
3. 12 dots case mold type

## ■ Outline Dimensions

(Unit: mm)



## GL112□9

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

(Ta = 25°C)

Parameter	Symbol	GL112R9	GL112H9				Unit	
Power dissipation	P	25	50				mW	
Continuous forward current	I <sub>F</sub>	10	20				mA	
<sup>※2</sup> Peak forward current	I <sub>FM</sub>	50	50				mA	
Derating factor	DC	—	0.18	0.36			m A/°C	
	Pulse	—	0.91	0.91			m A/°C	
Reverse voltage	V <sub>R</sub>	5	5				v	
Operating temperature	T <sub>opr</sub>	-20 to +70						°C
Storage temperature	T <sub>stg</sub>	-30 to +80						°C
<sup>※3</sup> 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 2.6 mm from (A) level of outline dimensions

## GL1 12R9(Red)

## ■ Electro-optical Characteristics ※1

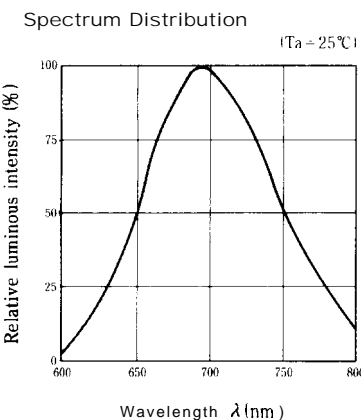
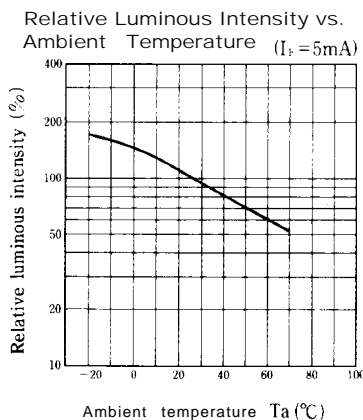
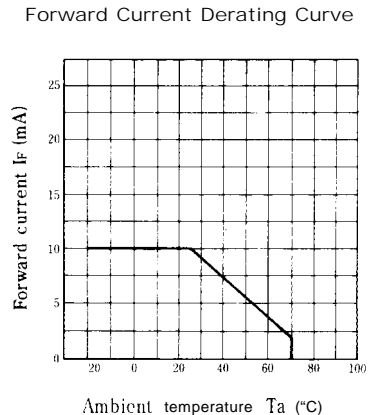
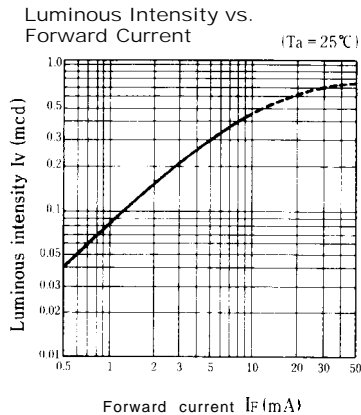
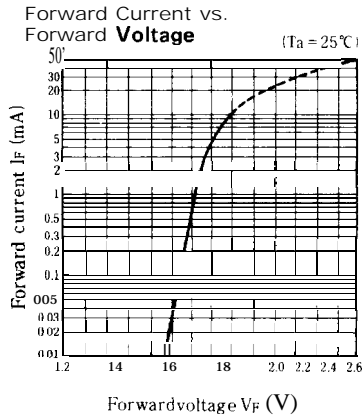
(Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	GL112R9	$I_F = 5\text{mA}$	—	1.9	2.5	V
※4 Luminous intensity	$I_v$	GL112R9	$I_F = 5\text{mA}$	0.15	0.3	—	mcd
Peak emission wavelength	$\lambda_p$	GL112R9	$I_F = 5\text{mA}$		695	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL112R9	$I_F = 5\text{mA}$		100	—	nm
Reverse current	$I_R$	GL112R9	$V_R = 4\text{V}$			10	$\mu\text{A}$
Response frequency	$f_c$	GL112R9	—	—	4	—	MHz

※1 Per dot

※4 Tolerance:  $\pm 30\%$ 

## ■ Characteristics Diagrams



**GL112H9(Yellow)**

**Electro-optical Characteristics** \*1

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	GL112H9	$I_F = 10\text{mA}$	-	1.9	2.5	V
*4 Luminous intensity	$I_V$	GL112H9	$I_F = 10\text{mA}$	0.2	0.5	-	mcd
Peak emission wavelength	$\lambda_p$	GL112H9	$I_F = 10\text{mA}$	-	585	-	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL112H9	$I_F = 10\text{mA}$	-	30	-	nm
Reverse current	$I_R$	GL112H9	$V_R = 4\text{V}$	-	-	10	$\mu\text{A}$
Response frequency	$f_c$	GL112H9	-	-	4	-	MHz

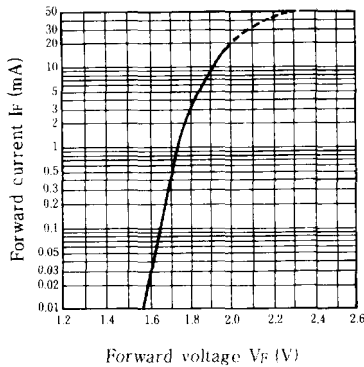
\*1 Per dot

\*4 Tolerance:  $\pm 30\%$

**Characteristics Diagrams**

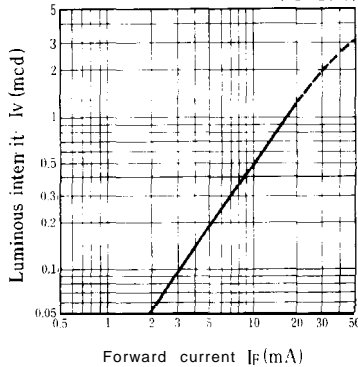
**Forward Current vs. Forward Voltage**

(Ta = 25°C)

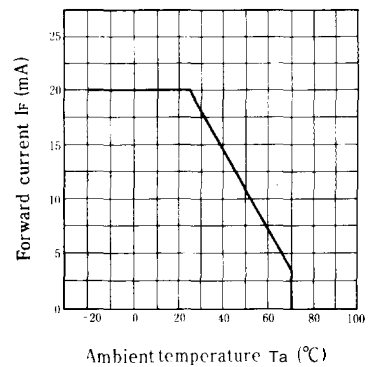


**Luminous Intensity vs. Forward Current**

(Ta = 25°C)

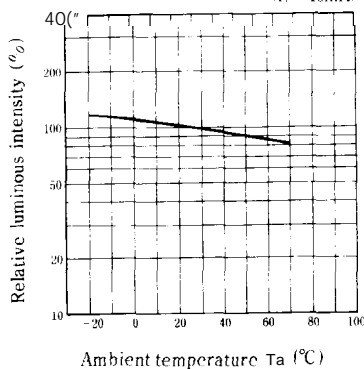


**Forward Current Derating Curve**



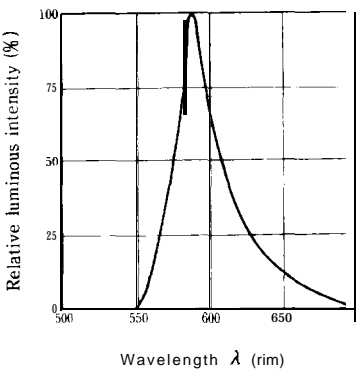
**Relative Luminous Intensity vs. Ambient Temperature**

( $I_F = 10\text{mA}$ )



**Spectrum Distribution**

(Ta = 25°C)



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