

# GL105M8

## 5-Dots Array LED, Dichromatic (3 yellow-green dots and 2 red dots)

■ Model No.

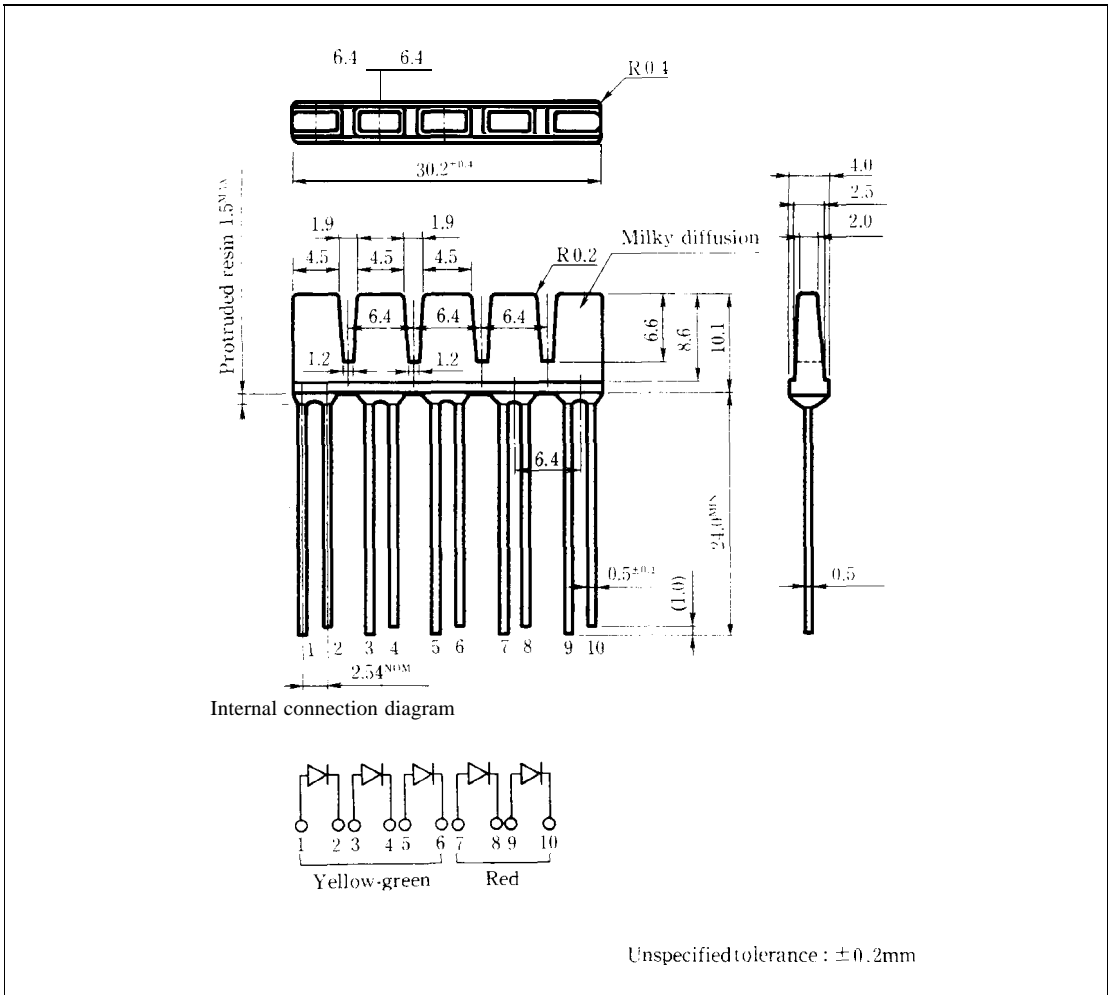
**GL105M8** Yellow-green GaP  
Red GaP

■ Features

1. Radiation shape per dots  $2.0 \times 4.5\text{mm}$
2. Outline dimensions  $4.0 \times 30.2\text{mm}$
3. 5 dots all resin mold type
4. Yellow-green : 3 dots
5. Red : 2 dots

■ Outline Dimensions

(Unit: mm)



## GL105M8

## ■ Absolute Maximum Ratings \*1

(Ta = 25°C)

Parameter	Symbol	GL105M8				Unit
		Yellow-green	Red			
Power dissipation	P	84	23			mW
Continuous forward current	I <sub>F</sub>	30	10			mA
*2 Peak forward current	I <sub>FM</sub>	<b>50</b>	<b>50</b>			mA
Derating factor	DC	—	<b>0.40</b>	<b>0.13</b>		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 + <b>100</b>				°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

## GL105M8(Yellow-green/Red)

## ■ Electro-optical Characteristics \*1

(T<sub>a</sub> = 25°C)

Parameter	Symbol	Radiation color	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	Yellow-green	I <sub>F</sub> = 20mA	—	2.1	2.8	V
		Red	I <sub>F</sub> = 20mA	—	1.9	2.2	
*4 Luminous intensity	I <sub>v</sub>	Yellow-green	I <sub>F</sub> = 20mA	0.6	1.4	—	mcd
		Red	I <sub>F</sub> = 5mA	—	0.9	—	
Peak emission wavelength	λ <sub>p</sub>	Yellow-green	I <sub>F</sub> = 20mA	—	565	—	nm
		Red	I <sub>F</sub> = 5mA	—	605	—	
Spectrum radiation bandwidth	Δλ	Yellow-green	I <sub>F</sub> = 20mA	—	30	—	nm
		Red	I <sub>F</sub> = 5mA	—	100	—	
Reverse current	I <sub>r</sub>	Yellow-green	V <sub>R</sub> = 4V	—	—	10	μA
		Red	V <sub>R</sub> = 4V	—	—	10	
Response frequency	f <sub>c</sub>	Yellow-green	—	—	4	—	
		Red	—	—	4	—	

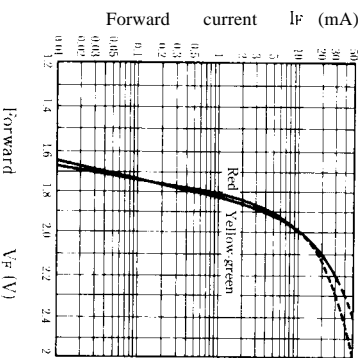
\*1 1 to 100

\*4 Tolerance: ±30%

## ■ Characteristics Diagrams

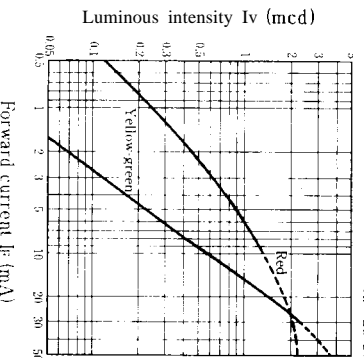
## Forward Current vs.

Forward Voltage

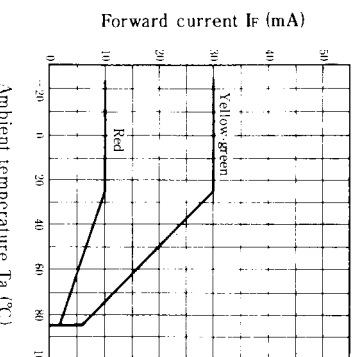
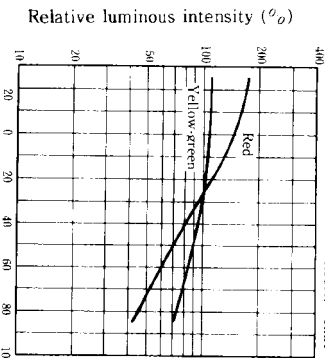
(T<sub>a</sub> = 25°C)

## Luminous Intensity vs.

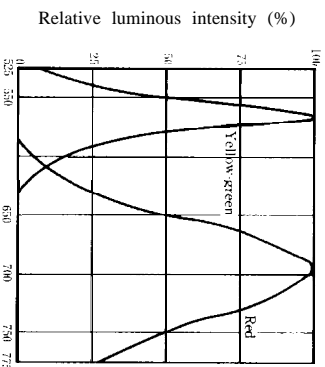
Forward Current

(T<sub>a</sub> = 25°C)

## Forward Current Derating Curve

Relative Luminous Intensity vs. Ambient Temperature (I<sub>v</sub> at I<sub>F</sub> = 20mA)(Red: I<sub>F</sub> = 50mA)

## Spectrum Distribution

(T<sub>a</sub> = 25°C)Ambient temperature T<sub>a</sub> (°C)

Wavelength λ (nm)

SHARP