

GL105U 8 Series

5-Dots Array LED

Model No.

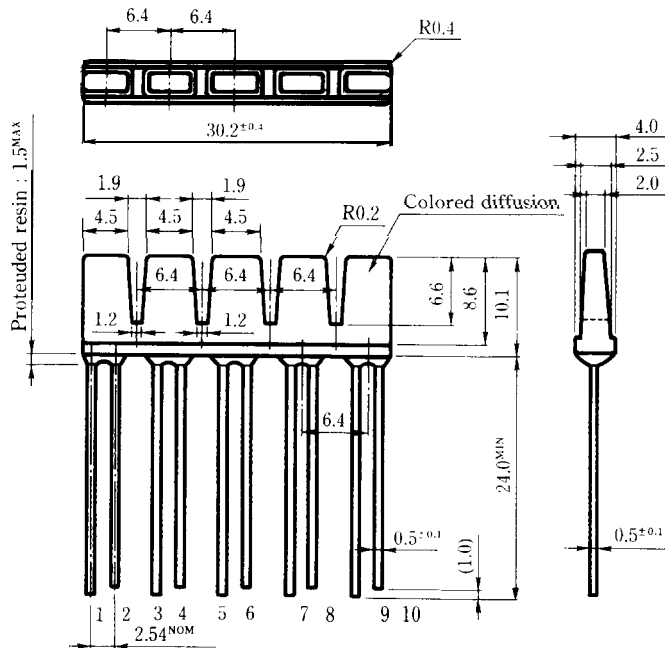
GL105R8 Red GaP
GL105H8 Yellow GaAsP/GaP

Features

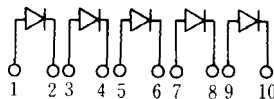
1. Radiation shape per dots $2.0 \times 4.5\text{mm}$
2. outline dimensions $4.0 \times 30.2\text{mm}$
3. 5 dots all resin mold type

Outline Dimensions

(Unit: mm)



Internal connection diagram

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

GL105D8

■ Absolute Maximum Ratings ^{※1}

(Ta = 25°C)

Parameter	Symbol	GL105R8	GL105H8			Unit
Power dissipation	P	23	84			mW
Continuous forward current	I _F	10	30			mA
※2 Peak forward current	I _{FM}	50	50			mA
Derating factor	DC	·	0.13	0.40		mA/°C
	Pulse		0.67	0.67		mA/°C
Reverse voltage	V _R	5	5			v
operating temperature	T _{opr}	-25 to +85				°C
Storage temperature	T _{stg}	-25 to +100				°C
※3 Soldering temperature	T _{sol}	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

GL105R8(Red)

■ Electro-optical Characteristics ※1

(Ta=25°C)

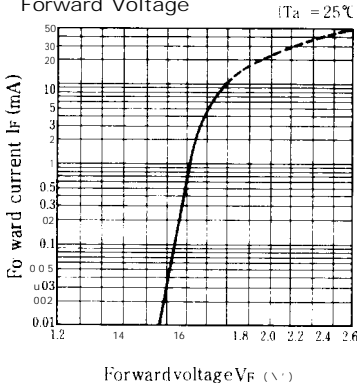
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL105R8	$I_F = 5\text{mA}$	—	1.9	2.3	V
※4 Luminous intensity	I_V	GL105R8	$I_F = 5\text{mA}$	0.3	0.9	—	mcd
Peak emission wavelength	λ_p	GL105R8	$I_F = 5\text{mA}$	—	695	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL105R8	$I_F = 5\text{mA}$	—	100	—	nm
Reverse current	I_R	GL105R8	$V_R = 4\text{V}$	—	—	10	μA
Response frequency	f_c	GL105R8	—	—	4	—	MHz

※1 Per dot

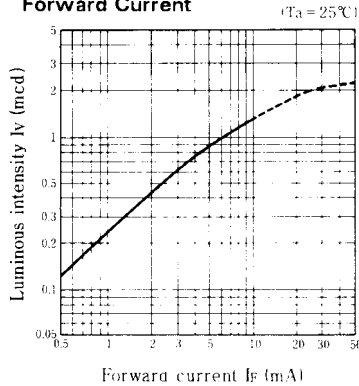
※4 Tolerance: $\pm 30\%$

■ Characteristics Diagrams

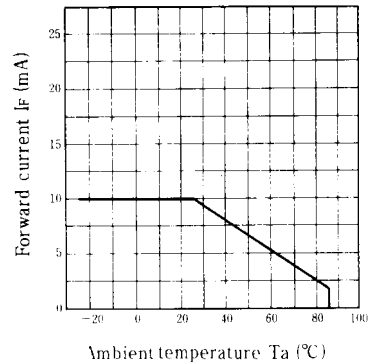
Forward Current vs. Forward Voltage



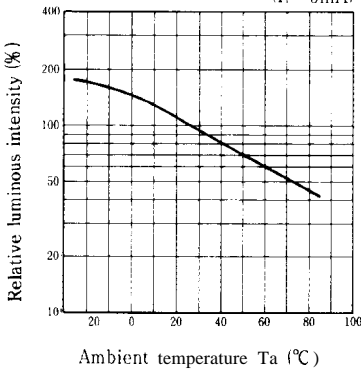
Luminous Intensity vs. Forward Current



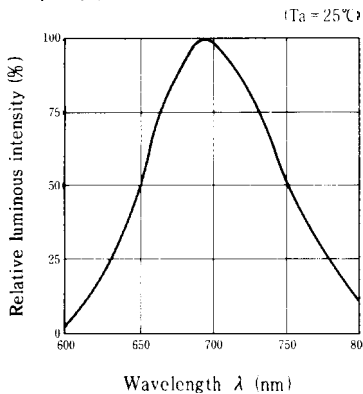
Forward Current Derating Curve



Relative Luminous intensity vs. Ambient Temperature (IF = 5mA)



Spectrum Distribution



GL105H8(Yellow)

■ Electro-optical Characteristics *1

(Ta=25°C)

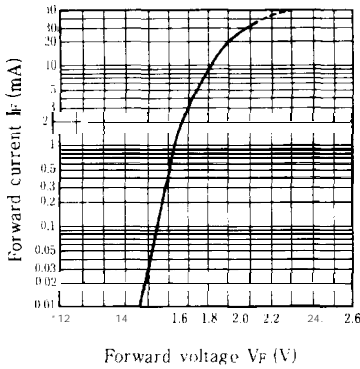
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL105H8	$I_F = 20\text{mA}$	·	2.0	2.8	“
*4 Luminous intensity	I_v	GL105H8	$I_F = 20\text{mA}$	1.5	5.0	—	mcd
Peak emission wavelength	λ_p	GL105H8	$I_F = 20\text{mA}$	—	585	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL105H8	$I_F = 20\text{mA}$	—	30	—	nm
Reverse current	I_R	GL105H8	$V_R = 4\text{V}$	—	—	10	μA
Response frequency	f_c	GL105H8	—	—	4	—	MHz

*1 Per dot

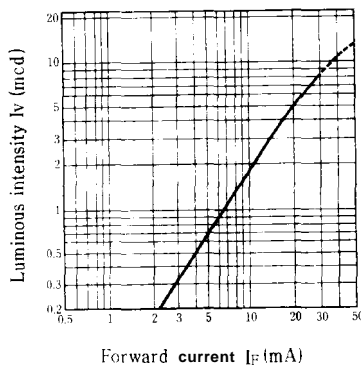
*4 Tolerance: $\pm 30\%$

■ Characteristics Diagrams

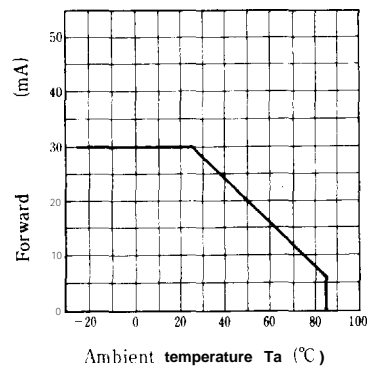
Forward Current vs. Forward Voltage (Ta = 25°C)



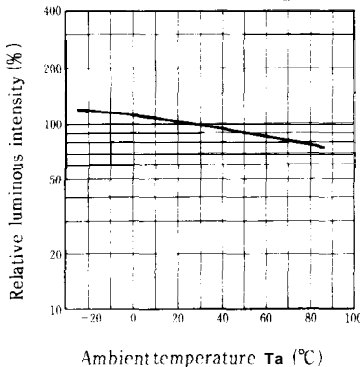
Luminous Intensity vs. Forward Current (Ta = 25°C)



Forward Current Derating Curve



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



Spectrum Distribution (Ta = 25°C)

