GL1 07012 Series

7-Dots Array LED

Model No.

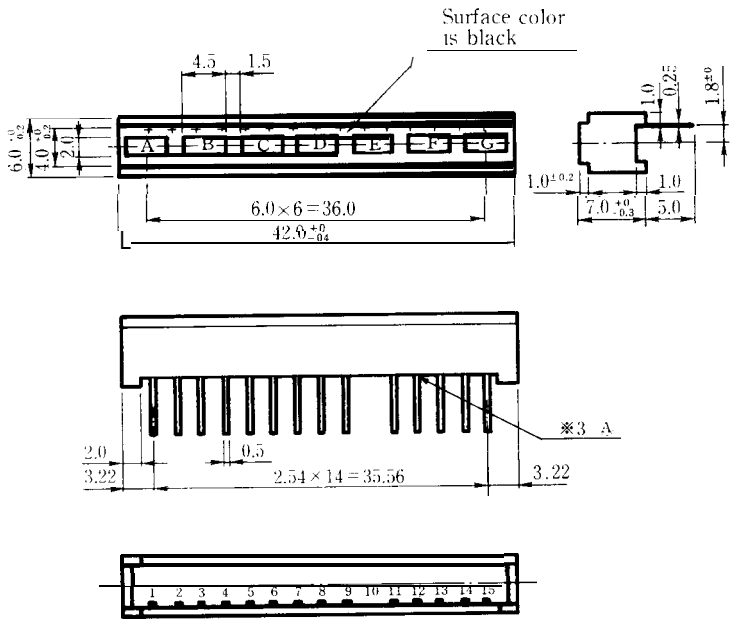
GL107R12 Red GaP
GL107H12 Yellow GaAsP/GaP

Features

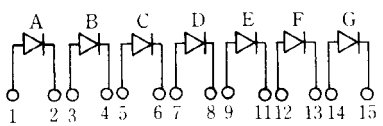
1. Radiation shape per dots 2.0 × 4.5mm
2. Outline dimensions 6.0 ×42.0mm
3. 7 dots case mold type

Outline Dimensions

(Unit: mm)



Internal connection diagram



Unspecified tolerance : ±0.3mm

GL107U12

■ Absolute Maximum Ratings ※1

(Ta=25℃)

Parameter		Symbol	GL107R12	GL107H12				Unit
Power dissipation		P	25	50				mW
Continuous forward current		I_F	10	20				mA
※2 Peak forward current		I_{FM}	50	50				mA
Derating factor	DC	−	0.18	0.36				mA/℃
	Pulse	−	0.91	0.91				mA/℃
Reverse voltage		V_R	5	5				V
Operating temperature		T_{opr}	−20 to +70					℃
Storage temperature		T_{stg}	−30 to +80					℃
※3 Soldering temperature		T_{sol}	260 (within 5 seconds)					℃

※1 Per dot
※2 Duty ratio = 1/10, Pulse width = 0.1ms
※3 At the position of 2.6 mm from Ⓐ level of outline dimensions

GL107R12 (Red)

Electro-optical Characteristics ※1

(Ta=25℃)

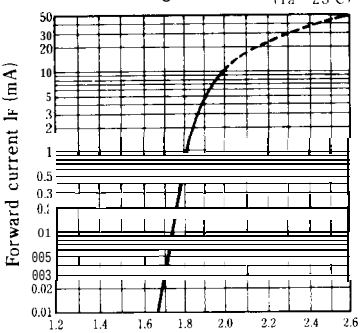
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL107R12	I_F=5mA	–	1.9	2.5	V
※4 Luminous intensity	Iv	GL107R12	I_F=5mA	0.15	0.3	–	mcd
Peak emission wavelength	λ_p	GL107R12	I_F=5mA	–	695	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL107R12	I_F=5mA	–	100	–	nm
Reverse current	I_R	GL107R12	V_R=4V	–	–	10	μA
Response frequency	f_c	GL107R12	–	–	4	–	MHz

※1 Per dot

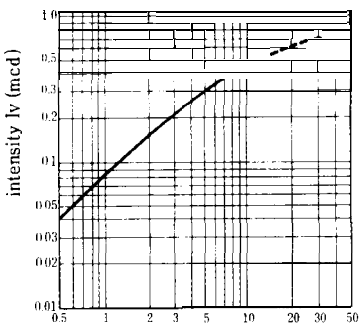
※4 Tolerance: ±30%

Characteristics Diagrams

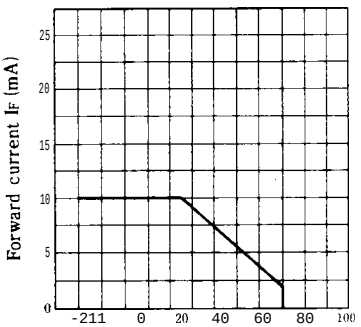
Forward Current vs. Forward Voltage (Ta=25℃)



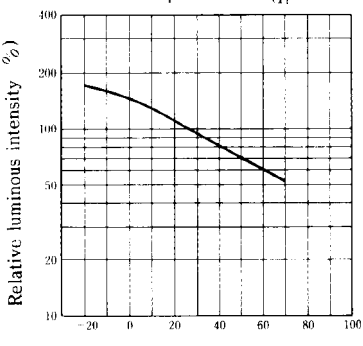
Luminous Intensity vs. Forward Current (Ta=25℃)



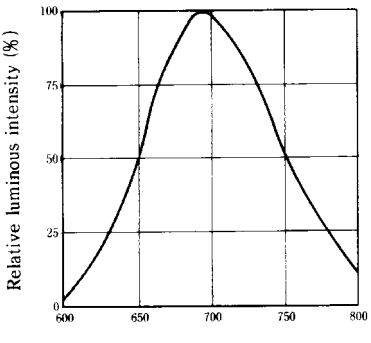
Forward Current **Derating** Curve



Relative Luminous Intensity vs. Ambient Temperature (I_F=5mA)



Spectrum Distribution (Ta=25℃)



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GL107H1 2(Yellow)

■ Electro-optical Characteristics ※1

(Ta=25℃)

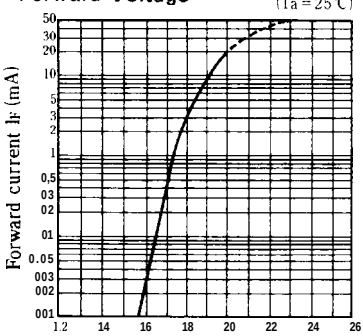
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL107H12	I_F=10mA		1,9	2.5	v
※4 Luminous intensity	I_V	GL107H12	I_F=10mA	0.2	0.5	–	mcd
Peak emission wavelength	λ_p	GL107H12	I_F=10mA		585	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL107H12	I_F=10mA	–	30	–	nm
Reverse current	I_R	GL107H12	V_R=4V	–	–	10	μA
Response frequency	fc	GL107H12	–	–	4	–	MHz

※1 Per dot

※4 Tolerance: ±30%

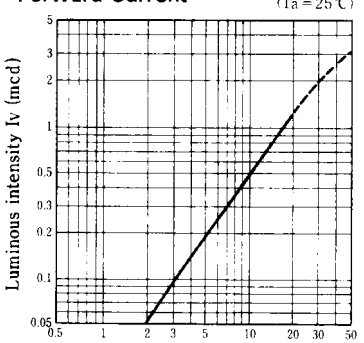
■ Characteristics Diagrams

Forward Current vs. Forward Voltage (Ta=25℃)



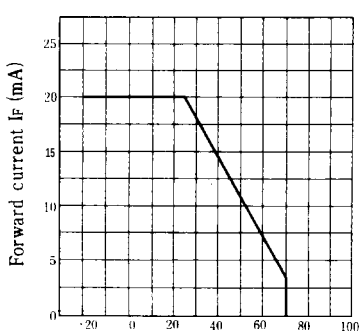
Forward voltage V_F(V)

Luminous Intensity vs. Forward Current (Ta=25℃)



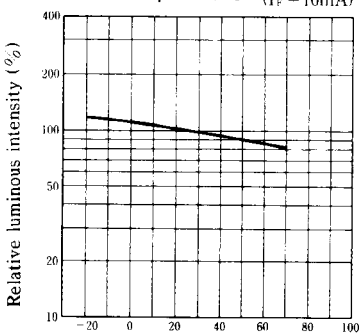
Forward current I_F(mA)

Forward Current Derating Curve



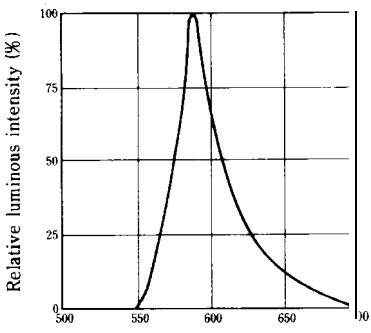
Ambient temperature Ta(℃)

Relative Luminous Intensity vs. Ambient Temperature (I_F=10mA)



Ambient temperature Ta (“C)

Spectrum Distribution (Ta=25℃)



Wavelength λ (rim)