

# GL1 12M13

## 12-Dots Array LED, Dichromatic (8 yellow-green dots and 4 red dots)

■ Model No.

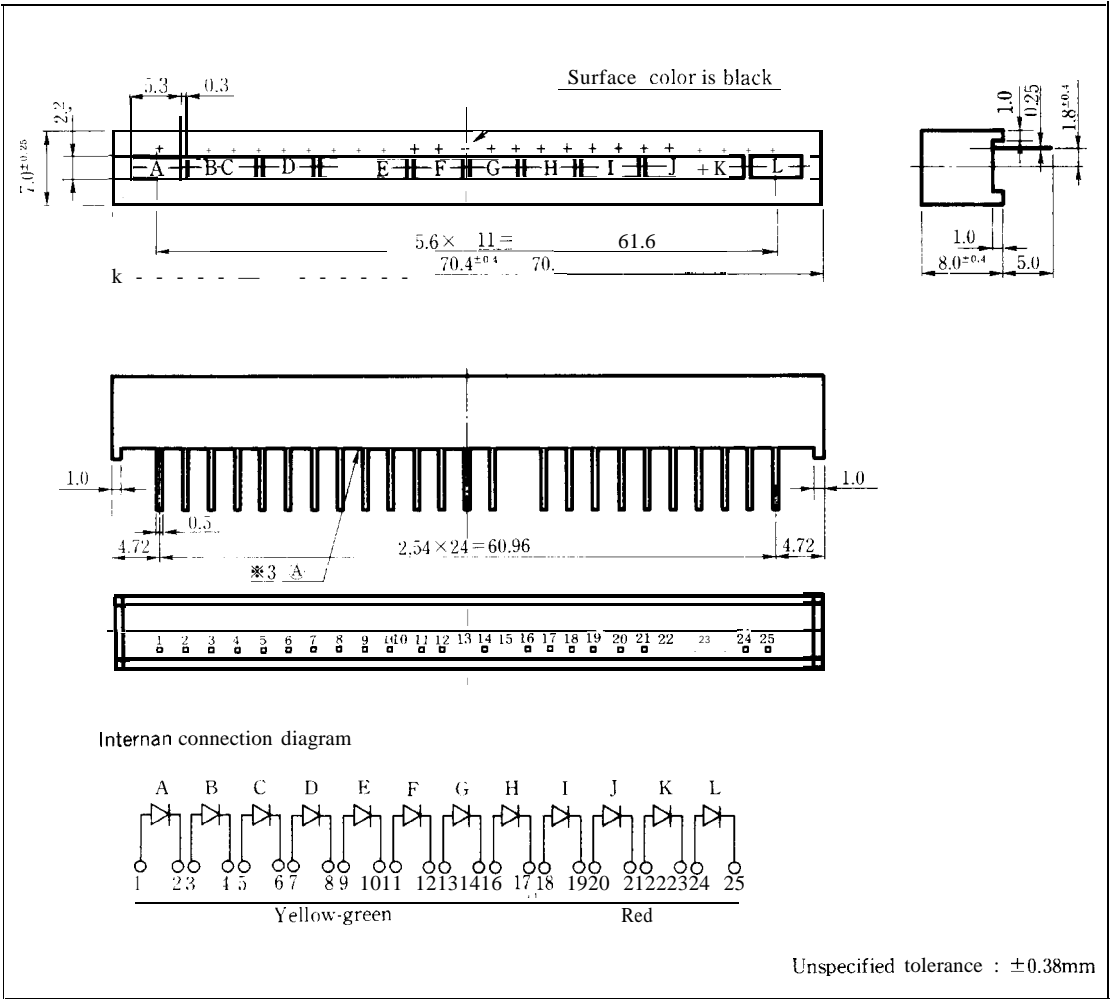
GL112M13 Yellow-green GaP  
Red GaP

■ Features

1. Radiation shape per dots 2.2 x 5.3mm
2. Outline dimensions 7.0 x 70.4mm
3. 12 dots case mold type
4. Yellow-green : 8 dots
5. Red : 4 dots

■ Outline Dimensions

(Unit: mm)



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## GL112M13

■ Absolute Maximum Ratings <sup>※1</sup>(T<sub>a</sub> = 25°C)

Parameter	Symbol	GL112M13				Unit
		Yellow-green	Red			
Power dissipation	P	38	25			mW
Continuous forward current	I <sub>F</sub>	15	10			mA
※2 Peak forward current	I <sub>FM</sub>	50	50			mA
Derating factor	DC	0.27	0.18			mA/°C
	Pulse	0.091	0.091			mA/°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
※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 2.6 mm from (A) level of outline dimensions

GL1 12M13(Yellow-green/Red)

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

(Ta=25°C)

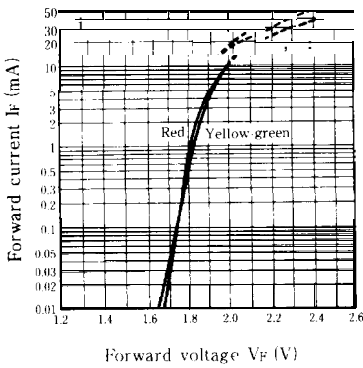
Parameter	Symbol	Radiation color	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	Yellow-green	I <sub>F</sub> = 10mA	—	2.0	2.5	V
		Red	I <sub>F</sub> = 5mA	—	1.9	2.5	
*4 Luminous intensity	I <sub>v</sub>	Yellow-green	I <sub>F</sub> = 10mA	0.2	0.5	—	mcd
		Red	I <sub>F</sub> = 5mA	0.15	0.3	—	
Peak emission wavelength	λ <sub>p</sub>	Yellow-green	I <sub>F</sub> = 10mA	—	565	—	nm
		Red	I <sub>F</sub> = 5mA	—	695	—	
Spectrum radiation bandwidth	Δλ	Yellow-green	I <sub>F</sub> = 10mA	—	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	—	MHz
		Red	—	—	4	—	

\*1 Per dot

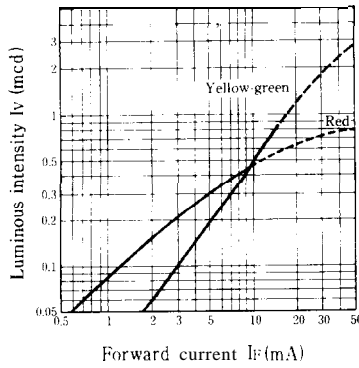
\*4 Tolerance: ±30%

■ **Characteristics Diagrams**

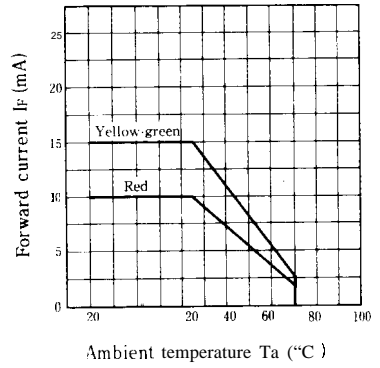
Forward Current vs. Forward Voltage (Ta = 25°C)



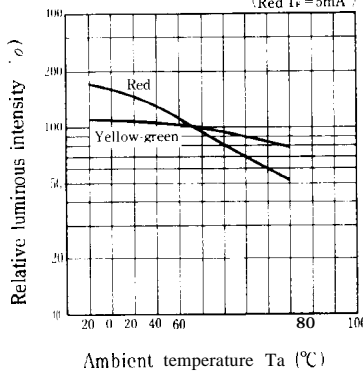
Luminous Intensity vs. Forward Current (Ta = 25°C)



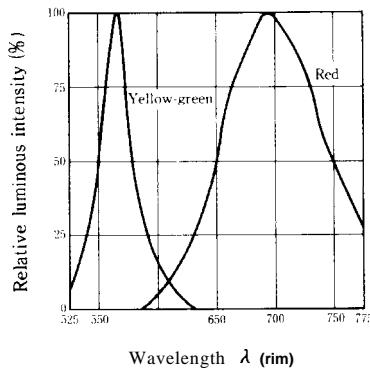
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature (Y.g I<sub>F</sub> = 10mA, Red I<sub>F</sub> = 5mA)



Spectrum Distribution (Ta = 25°C)



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