

GL9ED08/ GL8ED08

20.32mm Character Height,
Dichromatic Numeric
LED Lamps

■ **Model No.**

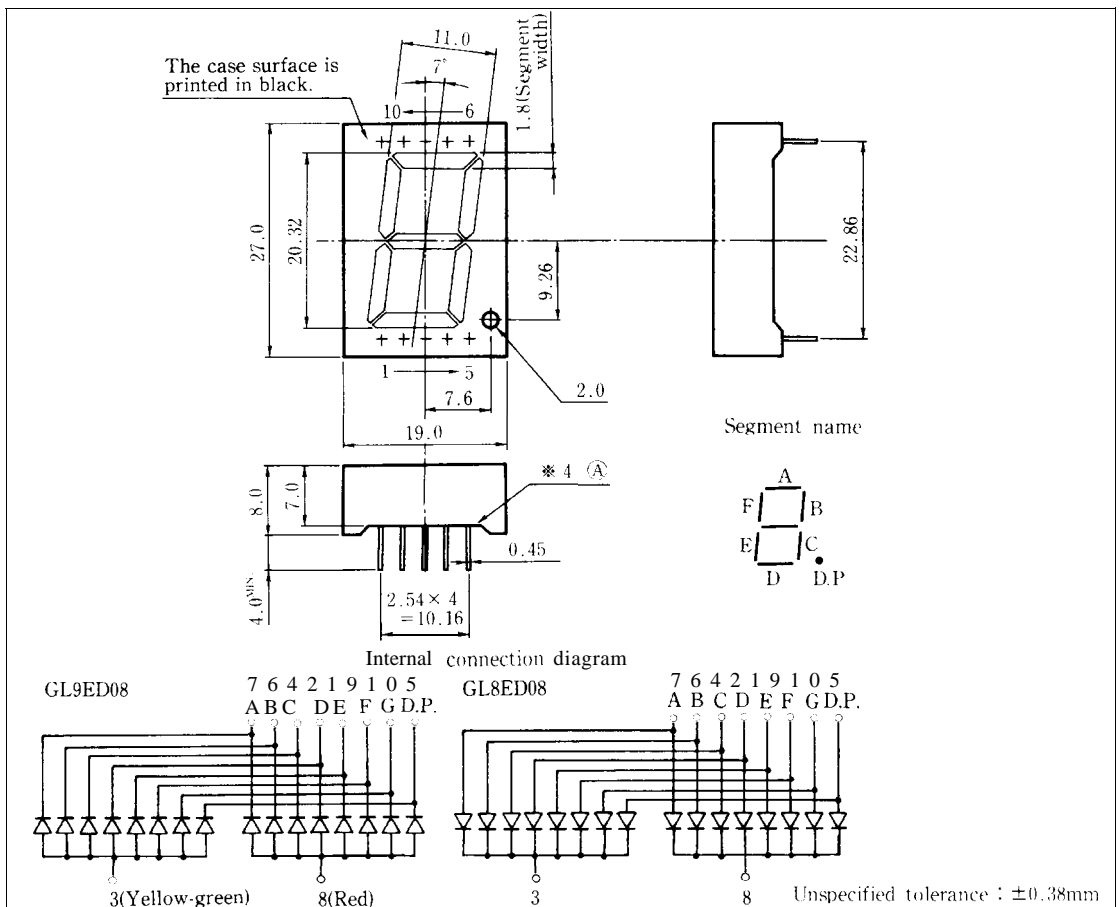
GL9ED08/GL8ED08 Yellow-green GaP
Red GaAsP/GaP

■ **Features**

1. Character height : 20.32mm
2. 1 digit
3. Case mold type
4. Radiation color : Red, yellow-green and orange (mixed color)

■ **Outline Dimensions**

(Unit : mm)



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■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter		Symbol	GL9ED08 GL8ED08				Unit
			Yellow-green	Red			
*1 Power dissipation	*2 Per digit	P	350	350			mW
Continuous forward current	*2 Per digit	I _F	140	140			mA
	*3		20	20			
*4 Peak forward current	*3	I _{FM}	50	50			mA
Derating factor	*2 Per digit	DC	-	2.54	2.54		mA/°C
		Pulse	-	6.36	6.36		
Reverse voltage	Per segment	V _R	5	5			v
	Per decimal point		5	5			
Operating temperature		T _{opr}	-30 to +70				°C
Storage temperature		T _{stg}	-40 to +80				°C
Soldering temperature		T _{so1}	260 (within 5 seconds)				°C

*1 The value of power dissipation is specified under the condition that either yellow-green or red is lightened separately. When the both diodes of yellow-green and red are lightened simultaneously, the power dissipation of each diode should be less than the half of the value specified in this table.

*2 Per digit : 7 segments

*3 Per segment, or per decimal point

*4 Duty ratio = 1/10, Pulse width = 0.1ms

*5 At the position of 2.6mm from ④ level of outline dimensions

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Electro-optical Characteristics

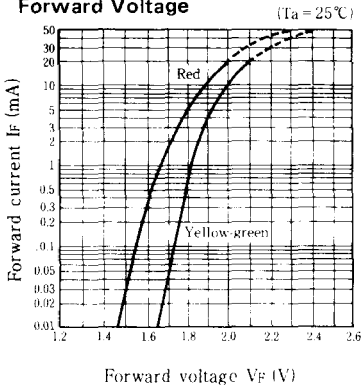
($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Radiation color	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	Per segment Per decimal point V_F	Yellow-green	$I_F = 10\text{mA}$		2.0	2.5	V
		Red	$I_F = 10\text{mA}$		1.85	2.5	
		Yellow-green	$I_F = 10\text{mA}$		2.0	2.5	V
		Red	$I_F = 10\text{mA}$		1.85	2.5	
*6 Luminous intensity	Per segment Per decimal point I_V	Yellow-green	$I_F = 10\text{mA}$	1.30	3.0		mcd
		Red	$I_F = 10\text{mA}$	1.01	2.5		
		Yellow-green	$I_F = 10\text{mA}$	0.5	1.0		mcd
		Red	$I_F = 10\text{mA}$	0.3	0.8	-	
*3 Peak emission wavelength	λ_P	Yellow-green	$I_F = 10\text{mA}$		565		nm
		Red	$I_F = 10\text{mA}$		635		
*3 Spectrum radiation bandwidth	$\Delta\lambda$	Yellow-green	$I_F = 10\text{mA}$		30		nm
		Red	$I_F = 10\text{mA}$		35		
Reverse current	Per segment Per decimal point I_R	Yellow-green	$V_R = 4\text{V}$			10	μA
		Red	$V_R = 4\text{V}$			10	
		Yellow-green	$V_R = 4\text{V}$			10	μA
		Red	$V_R = 4\text{V}$			10	
*3 Response frequency	f_c	Yellow-green			0.8		MHZ
		Red			0.2		

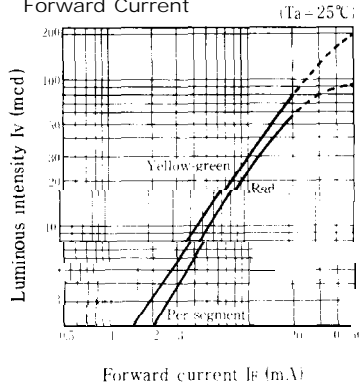
*3 Per segment, or per decimal point
*6 Tolerance : $\pm 30\%$

Characteristics Diagrams

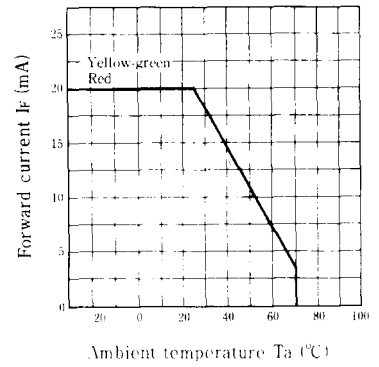
Forward Current vs. Forward Voltage



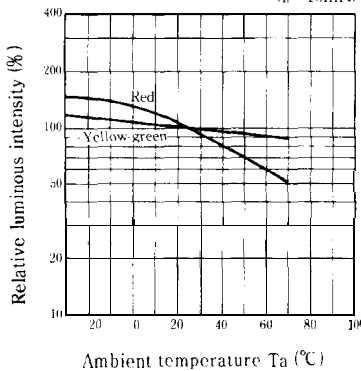
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution

