GL9DU100 GL8001 00 Series

25.4mm Character Height, Dichromatic Numeric LEDs

■ Model No.

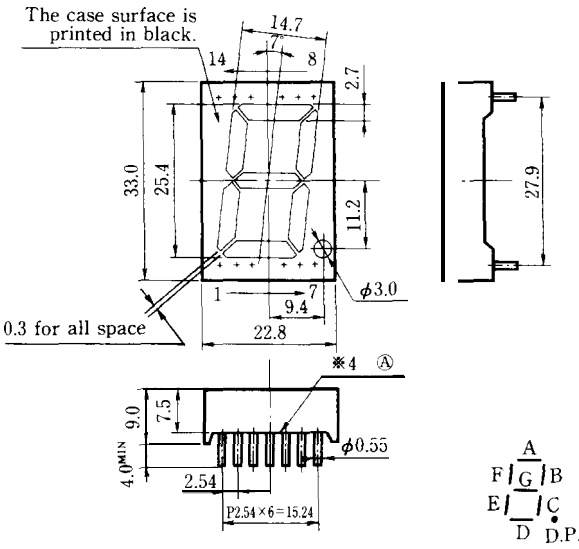
GL9ED100/GL8ED100	Yellow-green	GaP
	Red	GaAsP/GaP
GL9ET100/GL8ET100	Yellow-green	GaP
	Red	GaAlAs/GaAs

■ Features

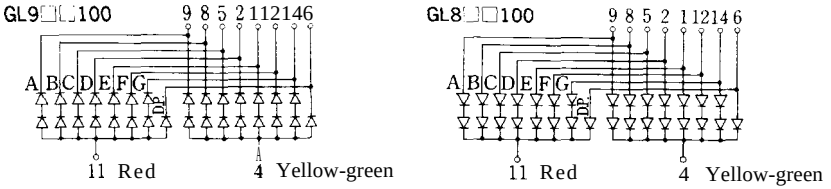
1. Character height : 25.4mm
2. 1 digit
3. Case mold type
4. Radiation color : Red, yellow-g een and orange (mixed color)

■ Outline Dimensions

(Unit: mm)



Internal connection diagram



Unspecified tolerance : ±0.38mm

GL9OO1OO / GL8DO1OO

■ Absolute Maximum Ratings (Ta =25°C)

Parameter			Symbol	GL9ED1OO GL8ED1OO		GL9ETIOO GL8ETIOO		Unit
				Yellow-green	Red	Yellow-green	Red	
Power dissipation	XI Per digit		P	700	700	700	616	mW
Continuous forward current	※1 Per digit		I_F	140	140	140	140	mA
	※2			20	20	20	20	
※3 Peak forward current	※2		I_{FM}	50	50	50	100	mA
Derating factor	※1 Per digit	DC	−	2.54	2.54	2.54	2.54	mA/℃
		Pulse	−	6.36	6.36	6.36	12.73	
Reverse voltage	Per segment		V_R	6	6	6	6	v
	Per decimal point			5	5	5	5	
operating temperature			To_p,	−30 to +70		−30to +70		“c
Storage temperature			T_{stg}	-40to +80		-40to +80		“C
※4 Soldering temperature			T_{sol}	260 (within 5 seconds)				“c

※1 Per digit: 7 segments
※2 Per segment, or per decimal point
※3 Duty ratio = 1/10, Pulse width = 0.1ms
※4 At the position of 3.1 mm from Ⓐ level of outline dimensions

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GL9ED1 00/GL8ED1 00

■ Electro-optical Characteristics

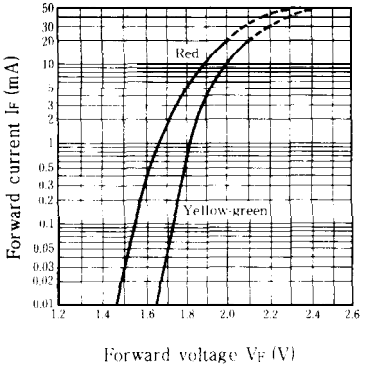
(Ta = 25℃)

Parameter		Symbol	Radiation color	Conditions	MIN	TYP.	MAX.	Unit
Forward voltage	Per segment	V_F	Yellow-green	I_F = 10mA		**4.0**	5 **0**	V
			Red	I_F = 10mA	·	3.7	5.0	
	Per decimal point		Yellow-green	I_F = 10mA		**2.0**	2.5	V
			Red	I_F = 10mA		1.85	2.5	
※5 Luminous intensity	Per segment	I_V	Yellow-green	I_F = 10mA	1.7	3.5	–	mcd
			Red	I_F = 10mA	1.7	3.5		
	Per decimal point		Yellow-green	I_F = 10mA	0.3	0.7	–	mcd
			Red	I_F = 10mA	0.3	**0.7**	-	
※2 Peak emission wavelength		λ_p	Yellow-green	I_F = 10mA	–	565	–	nm
			Red	I_F = 10mA	–	635	–	
※2 Spectrum radiation bandwidth		$\Delta\lambda$	Yellow-green	I_F = 10mA	–	30	–	nm
			Red	I_F = 10mA	–	35	–	
Reverse current	Per segment	I_R	Yellow-green	V_R = 5V	–	–	10	μA
			Red	V_R = 5V	–	–	10	
	Per decimal point		Yellow-green	V_R = 4V		–	10	μA
			Red	V_R = 4V			10	
※2 Response frequency		f_c	Yellow-green	–	–	4	-	MHz
			Red	–	–	4	-	

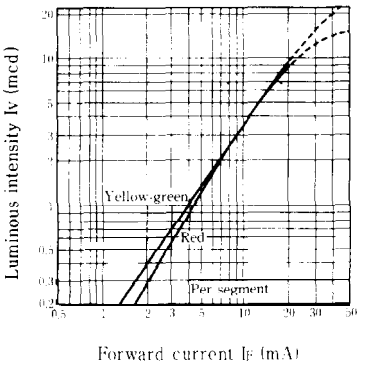
※2 Per segment, or per decimal point
※5 Tolerance: ±30%

■ Characteristics Diagrams

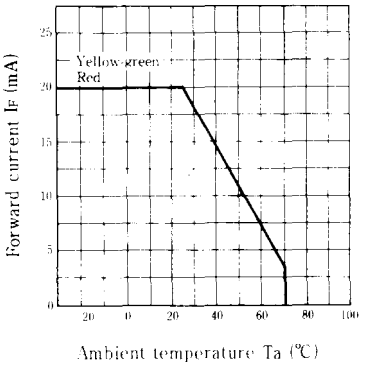
Forward Current vs. Forward Voltage



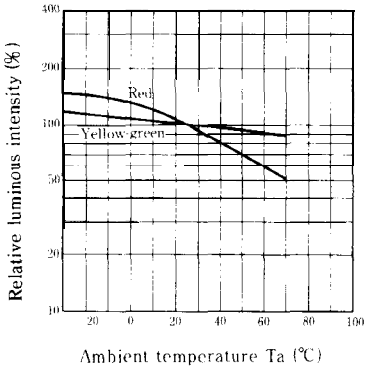
Luminous Intensity vs. Forward Current



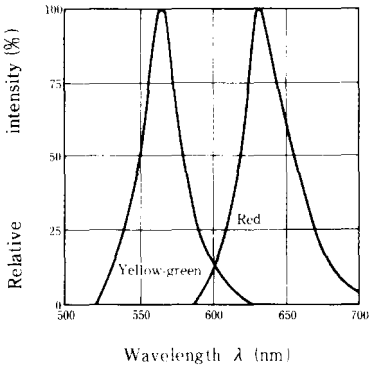
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



GL9ET1 oo/GL8ETl 00

■ Electro-optical Characteristics

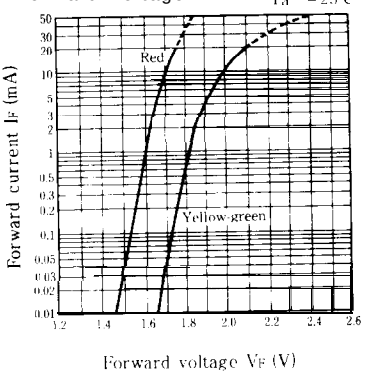
(Ta=25℃)

Parameter		Symbol	Radiation color	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	Per segment	V_F	Yellow-green	I_F=10mA		4.0	5.0	V
			Red	I_F=10mA		3.4	4.4	
	Per decimal point		Yellow-green	I_F=10mA		2.0	2.5	"
			Red	I_F=10mA	—	1.7	2.2	
※5 Luminous intensity	Per segment	Iv	Yellow-green	I_F=10mA	1,7	3.5	–	mcd
			Red	I_F=10mA	2.0	4.8	–	
	Per decimal point		Yellow-green	I_F=10mA	0.3	0.7	–	mcd
			Red	I_F=10mA	0.4	1.0	–	
※2 Peak emission wavelength		λ_p	Yellow-green	I_F=10mA		565	–	'm
			Red	I_F=10mA	—	660	–	
※2 Spectrum radiation bandwidth		$\Delta\lambda$	Yellow-green	I_F=10mA	—	30	–	'm
			Red	I_F=10mA	—	20	–	
Reverse current	Per segment	I_R	Yellow-green	V_R=5V		—	10	μA
			Red	V_R=5V	—		10	
	Per decimal point		Yellow-green	V_R=4V	—	—	10	μA
			Red	V_R=4V		—	10	
※2 Response frequency		f_c	Yellow-green	—		4	–	MHz
			Red			8	–	

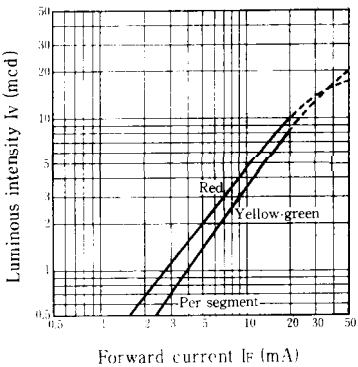
※2 Per segment, or per decimal point
※5 Tolerance: ±30%

■ Characteristics Diagrams

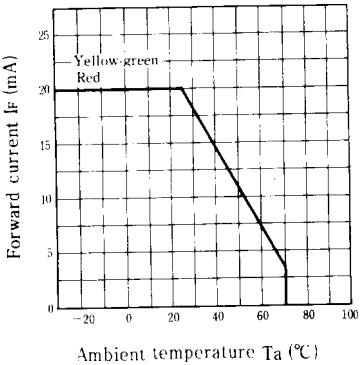
Forward Current vs. Forward Voltage



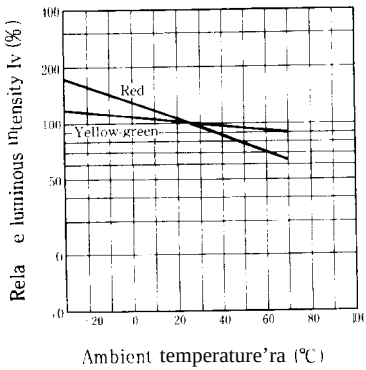
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



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



Spectrum Distribution