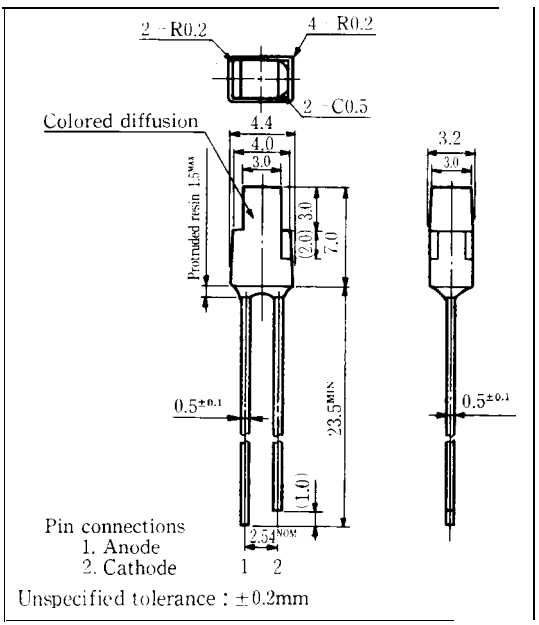
GL8□□48 Series "q"are Type 'ED 'amps

■ Model No.

GL8HD48	Red	GaAsP/GaP
GL8HY48	Yellow	GaAsP/GaP
GL8EG48	Yellow-green	GaP

■ Outline Dimensions (Unit: mm)



■ Features

1. 3.0mm×3.0mm square type all resin mold
2. Colored diffusion lens type

■ Absolute Maximum Ratings (Ta=25℃)

Parameter		Symbol	GL8HD48 GL8HY48	GL8EG48				Unit
Power dissipation		P	84	84				mW
Continuous forward current		I_F	30	30				mA
※1 Peak forward current		I_{FM}	50	50				mA
Derating factor	DC	−	0.40	0.40				mA/℃
	Pulse		0.67	0.67				mA/℃
Reverse voltage		V_R	5	5				V
Operating temperature		T_{opr}	−25 to +85					℃
Storage temperature		T_{stg}	−25 to +100					℃
※2 Soldering temperature		T_{sol}	260(within 5 seconds)					℃

※1 Duty ratio = 1/10 , Pulse width = 0.1ms
※2 At the position of 1.6mm from the bottom face of resin package

GL8HD48 (Red)

■ Electro-optical Characteristics

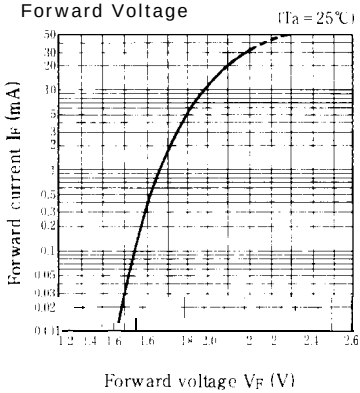
(Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL8HD48	I_F=20mA		2.0	**2.8**	V
※3 Luminous intensity	I_V	GL8HD48	I_F=20mA	2.0	10	–	mcd
Peak emission wavelength	λ_p	GL8HD48	I_F=20mA	–	635	–	nm
Spectrum radiation bandwidtb	$\Delta\lambda$	GL8HD48	I_F=20mA	–	35	–	nm
Reverse current	I_R	GL8HD48	V_R=4V	–	–	10	μA
Terminal capacitance	C_t	GL8HD48	V=OV f=1 MHz	–	20	–	pF
Response frequency	f_c	GL8HD48	–		4	–	MHz

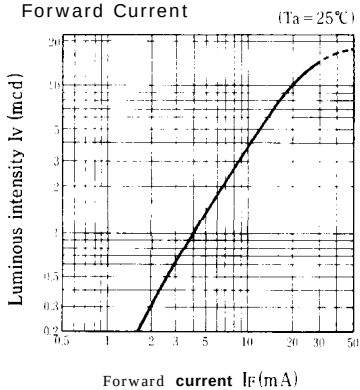
※3 Tolerance: ±30%

■ Characteristics Diagrams

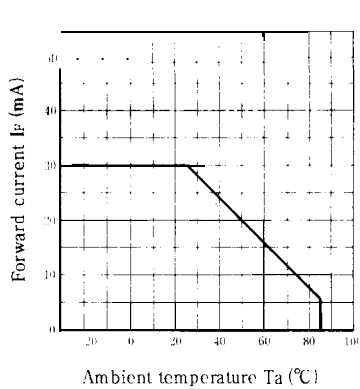
Forward Current vs. Forward Voltage



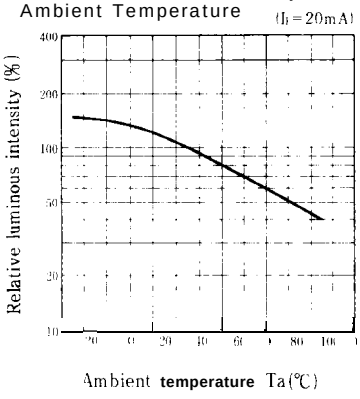
Luminous Intensity vs. Forward Current



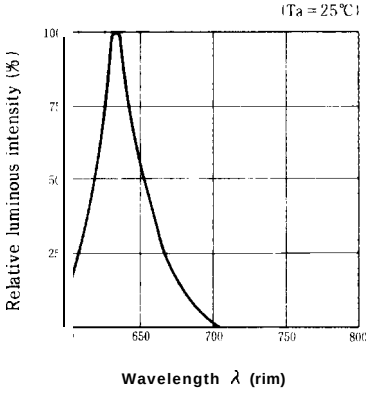
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



GL8HY48 (Yellow)

■ Electro-optical Characteristics

(Ta=25"C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL8HY48	I_F=20mA		2.0	2.8	V
※3 Luminous intensity	I\	GL8HY48	I_F=20mA	2.5	10	–	mcd
Peak emission wavelength	λ_p	GL8HY48	I_F=20mA	–	585	–	nm
Spectrum radiation bandwidtb	$\Delta\lambda$	GL8HY48	I_F=20mA	–	30	–	nm
Reverse current	I_R	GL8HY48	V_R=4V	–	–	10	μA
Terminal capacitance	C_t	GL8HY48	V=0V f=1 MHz	–	35	–	pF
Response frequency	f_c	GL8HY48	–	–	4	–	MHz

※3 **Tolerance:** ±30%

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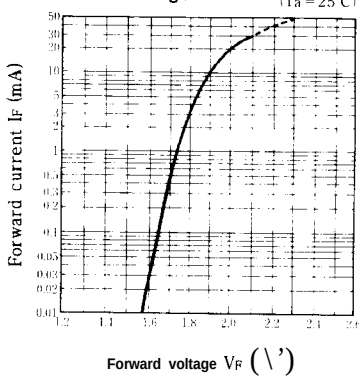
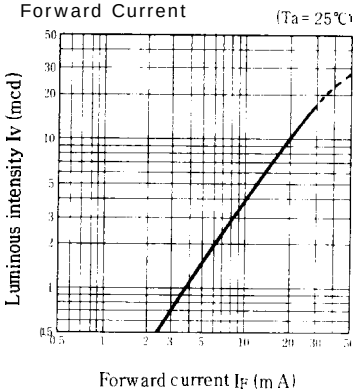
■ Characteristics Diagrams

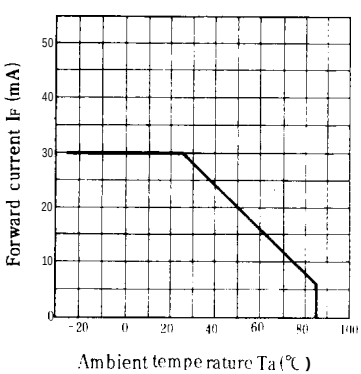
Forward Current vs. Forward Voltage



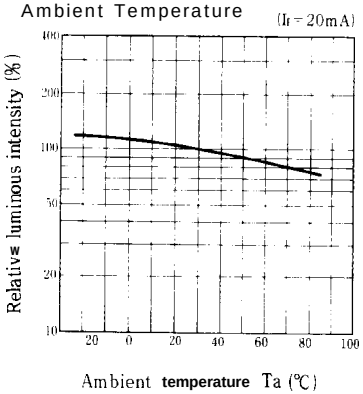
Luminous Intensity vs. Forward Current



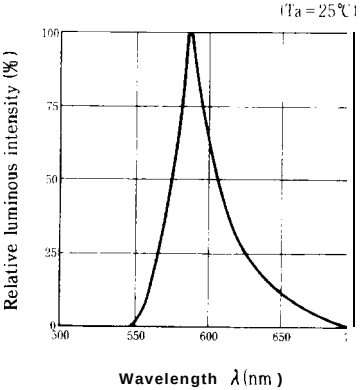
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



GL8EG48 (Yellow-green)

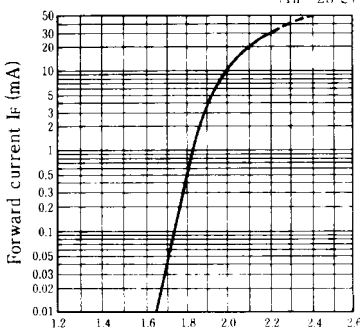
■ Electro-optical Characteristics (Ta=25℃)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL8EG48	I_F=20mA		2.1	2.8	V
※3 Luminous intensity	I_V	GL8EG48	I_F=20mA	2.5	12	–	mcd
Peak emission wavelength	λ_p	GL8EG48	I_F=20mA		565	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL8EG48	I_F=20mA		30	–	nm
Reverse current	I_R	GL8EG48	V_R=4V		–	10	μA
Terminal capacitance	C_t	GL8EG48	V=0V f=1 MHz	–	35	–	pF
Response frequency	f_c	GL8EG48	–	–	4	–	MHz

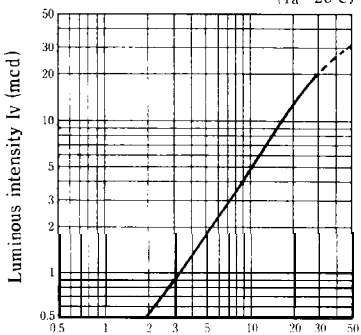
※3 Tolerance: ±30%

■ Characteristics Diagrams

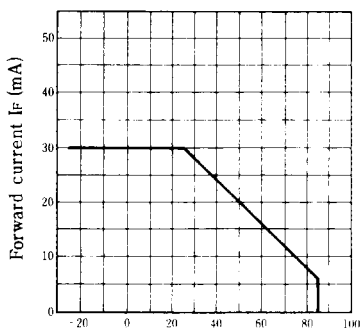
Forward Current vs. Forward Voltage (Ta=25℃)



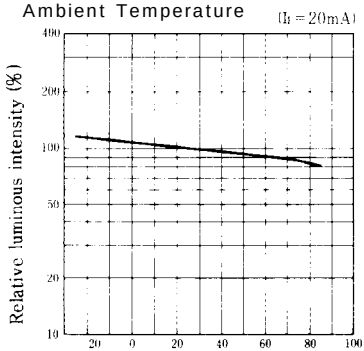
Luminous Intensity vs. Forward Current (Ta=25℃)



Forward Current Derating Curve



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



Spectrum Distribution (Ta=25℃)