GL8□□5 Series Rectangle Type LED Lamps

■ Model No.

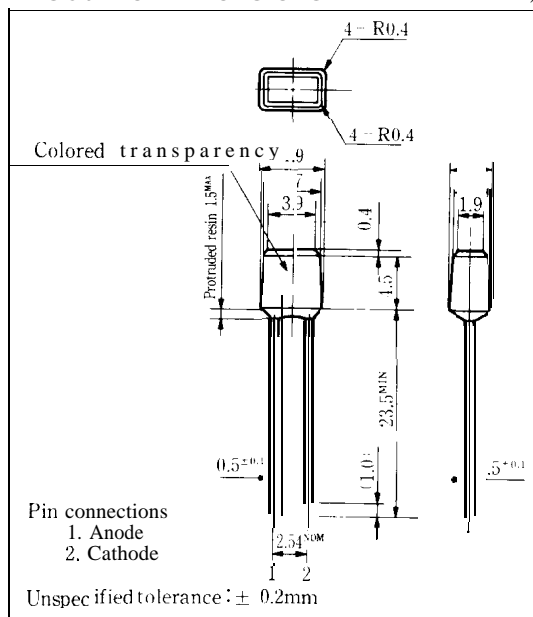GL8HD5   Red   GaAsP/GaP
GL8HY5   Yellow   GaAsP/GaP
GL8EG5   Yellow-green   GaP

■ Features

1. 1.9mm × 3.9mm rectangle type all resin mold
2. Colored transparency lens type

■ Outline Dimensions   (Unit: mm)

Pin connections
 1. Anode
 2. Cathode

Unspecified tolerance : ± 0.2mm

■ Absolute Maximum Ratings

(Ta = 25℃)

Parameter		Symbol	GL8HD5 GL8HY5	GL8EG5			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

GL8HD5 (Red)

■ Electro-optical Characteristics   (Ta = 25℃)
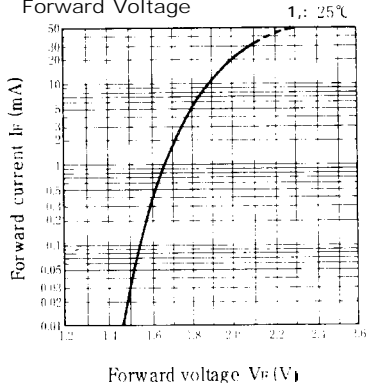
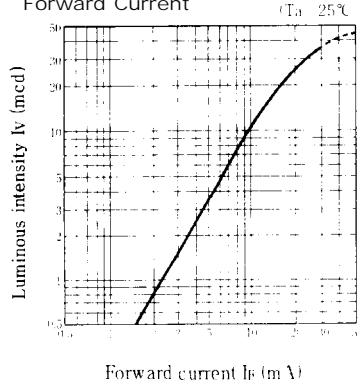| Parameter	Symbol	Model No.	Conditions	MIN	TYP.	MAX.	Unit
Forward voltage	V_F	GL8HD5	$I_F = 20mA$		2.0	2.8	V
※3 Luminous intensity	I_V	GL8HD5	$I_F = 20mA$	5.0	25	–	mcd
Peak emission wavelength	λ_p	GL8HD5	$I_F = 20mA$	–	635	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL8HD5	$I_F = 20mA$		35	–	nm
Reverse current	I_R	GL8HD5	$V_R = 4V$		–	10	μA
Terminal capacitance	C_t	GL8HD5	$V = 0V$ $f = 1MHz$	–	20	–	pF
Response frequency	f_c	GL8HD5	–		4	–	MHZ

※3 Tolerance: ±30%

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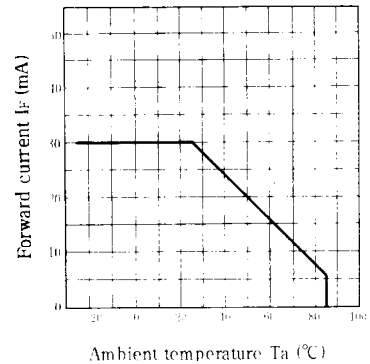
■ Characteristics Diagrams
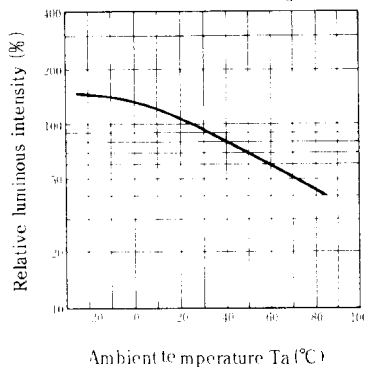
Forward Current vs. Forward Voltage
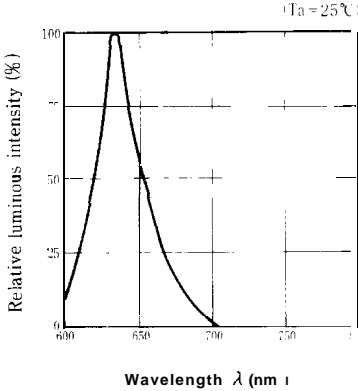

Luminous Intensity vs. Forward Current

Forward Current Derating Curve

Relative Luminous Intensity vs. Ambient Temperature

Spectrum Distribution

GL8HY5 (Yellow)

■ Electro-optical Characteristics

(Ta=25°C)

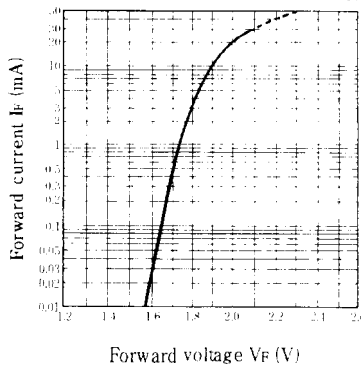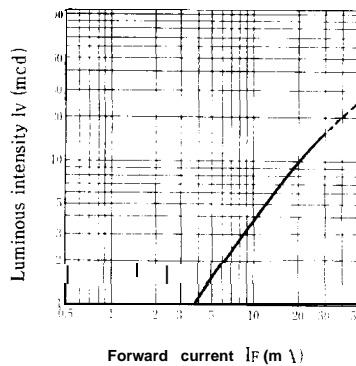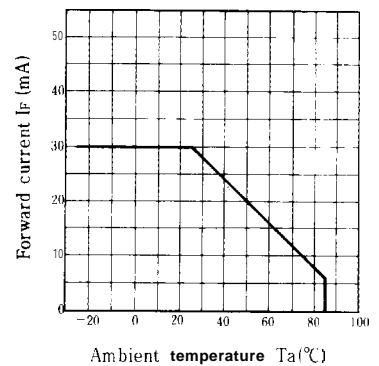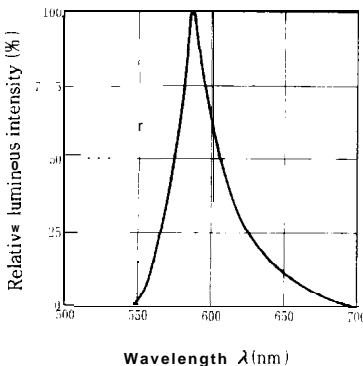| Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL8HY5	$I_F = 20mA$	—	2.0	2.8	V
※3 Luminous intensity	I_v	GL8HY5	$I_F = 20mA$	2.5	10	—	mcd
Peak emission wavelength	λ_p	GL8HY5	$I_F = 20mA$	—	585	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL8HY5	$I_F = 20mA$	—	30	—	nm
Reverse current	I_R	GL8HY5	$V_R = 4V$	—		10	μA
Terminal capacitance	C_t	GL8HY5	$V = 0V\ f = 1\ MHz$	—	35	—	pF
Response frequency	f_c	GL8HY5	—		4	—	MHz

※3 Tolerance: ±30%

■ Characteristics Diagrams

Forward Current vs. Forward Voltage

Forward voltage V_F (V)

Luminous Intensity vs. Forward Current

Forward current I_F (mA)

Forward Current Derating Curve

Ambient temperature Ta(°C)

Relative Luminous Intensity vs. Ambient Temperature

Ambient temperature Ta(°C)

Spectrum Distribution

Wavelength λ(nm)

GL8EG5 (Yellow-green)

■ Electro-optical Characteristics

(Ta = 25℃)

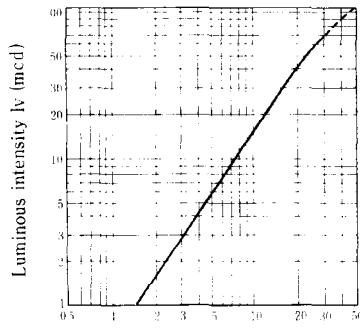| Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL8EG5	$I_F = 20$mA		2.1	2.8	V
※3 Luminous intensity	I\	GL8EG5	$I_F = 20$mA	9.0	40	–	mcd
Peak emission wavelength	λ_p	GL8EG5	$I_F = 20$mA		565	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL8EG5	$I_F = 20$mA		30	–	nm
Reverse current	I_R	GL8EG5	$V_R = 4$V			10	μA
Terminal capacitance	c,	GL8EG5	$V = 0$V $f = 1$ MHz	–	35	.	pF
Response frequency	f_c	GL8EG5	--		4	–	MHz

※3 Tolerance: ±30%

■ Characteristics Diagrams

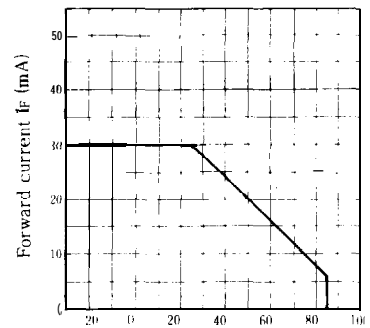**Forward Current vs. Forward Voltage**
(Ta = 25℃)
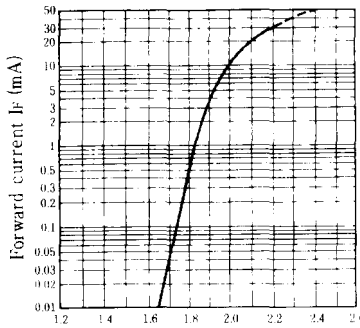
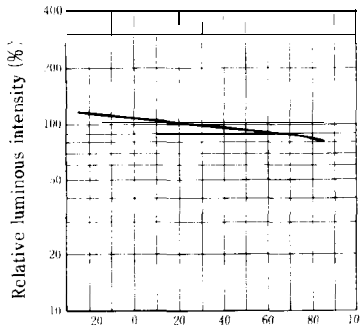Forward voltage V_F (V)

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

Forward current I_F (mA)
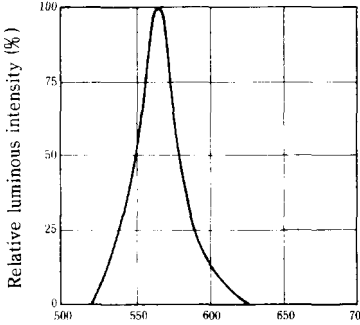
Forward Current Derating Curve

Ambient temperature **Ta** (℃)

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

Ambient temperature Ta(℃)

Spectrum Distribution
(Ta = 25℃)

Wavelength λ (nm)

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