

GL5□□60 Series

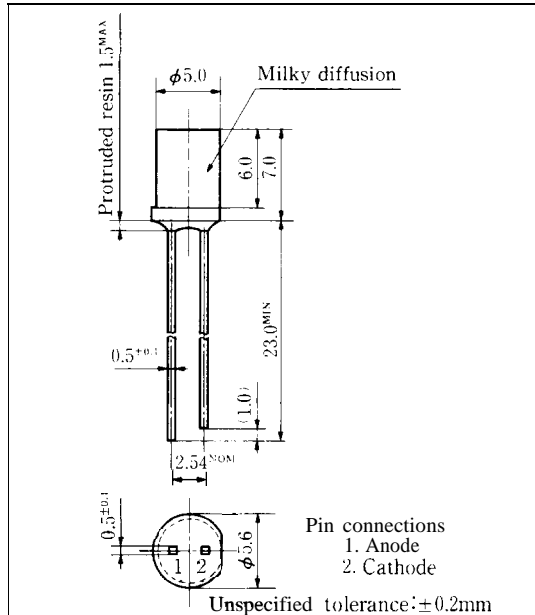
φ5mm(T-1³/₄) Cylinder Type LED Lamps

Model No.

GL5LR60 Red (High-luminosity)	GaAlAs/GaAs
GL5HD60 Red	GaAsP/GaP
GL5EG60 Yellow-green	GaP

Outline Dimensions

(Unit: mm)



Features

- φ5mm(T-1³/₄) all resin mold
- Milky diffusion lens type (flat top type)
- Wide viewing angle

Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	GL5LR60	GL5HD60	GL5EG60	Unit
Power dissipation	P	110	84	84	mW
Continuous forward current	I _F	150	130	130	mA
*1 Peak forward current	I _{FM}	1300	1500	1500	mA
Derating factor	DC	-	0.67	0.40	mA/°C
	Pulse	-	4.00	0.67	0.67
Reverse voltage	V _R	5	5	5	v
Operating temperature	T _{opr}	-25 to +85			°C
Storage temperature	T _{stg}	-25 to +100			°C
*2 Soldering temperature	T _{sol}	260(within 5 seconds)			I °C

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

Duty ratio = 1/16, Pulse width ≤ 1ms for GL5LR60

*2 At the position of 1.6mm from the bottom face of resin package

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GL5LR60 (Red)

■ Electro-optical Characteristics

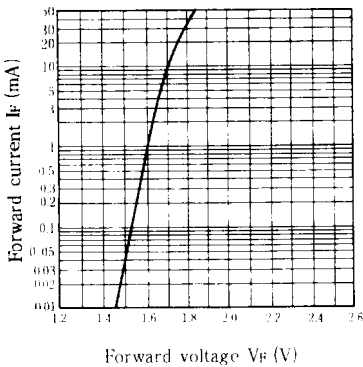
(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL5LR60	I _F = 20mA	—	1.75	2.2	V
*3 Luminous intensity	I _v	GL5LR60	I _F = 20mA	5.0	11	—	mcd
Peak emission wavelength	λ _p	GL5LR60	I _F = 20mA		660	—	nm
Spectrum radiation bandwidth	Δλ	GL5LR60	I _F = 20mA		20	—	nm
Reverse current	I _R	GL5LR60	V _R = 4V	—		10	μA
Terminal capacitance	C _t	GL5LR60	V = 0V f = 1MHz	—	30	—	pF
Response frequency	f _c	GL5LR60	—	—	8	—	MHz

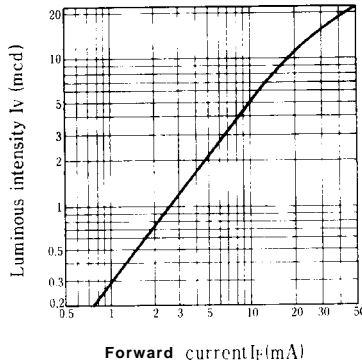
*3 Tolerance: ±30%

■ Characteristics Diagrams

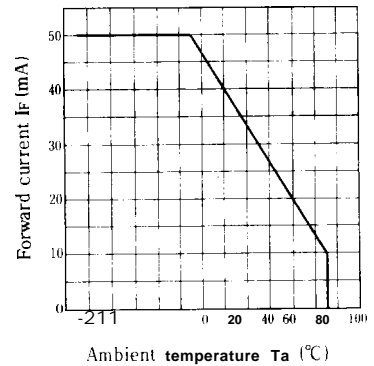
Forward Current vs. Forward Voltage (Ta = 25°C)



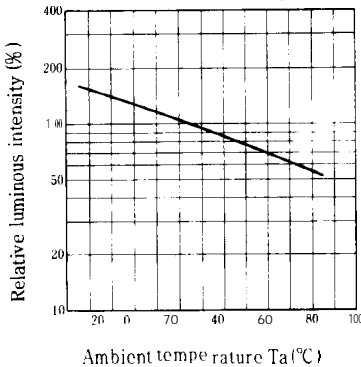
Luminous Intensity vs. Forward Current (Ta = 25°C)



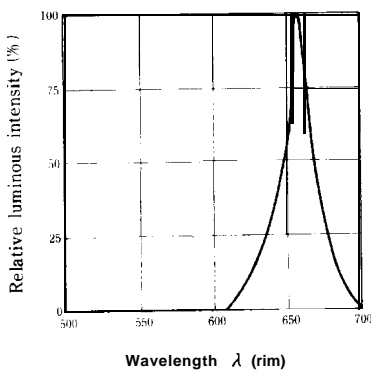
Forward Current Derating Curve



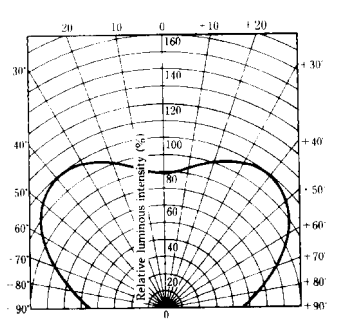
Relative Luminous Intensity vs. Ambient Temperature (I_F = 20mA)



Spectrum Distribution (Ta = 25°C)



Radiation Diagram (Ta = 25°C)



GL5HD60 (Red)

■ **Electro-optical** Characteristics

(Ta=25°C)

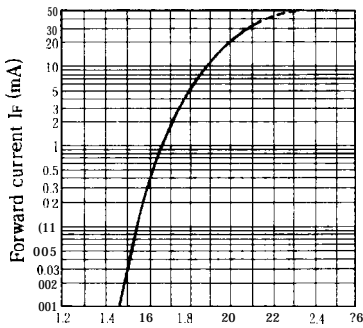
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL5HD60	$I_F = 20\text{mA}$	—	2.0	2.8	V
※3 Luminous intensity	I_V	GL5HD60	$I_F = 20\text{mA}$	3.0	8.0	—	mcd
Peak emission wavelength	λ_p	GL5HD60	$I_F = 20\text{mA}$	—	635	—	nm
Spectrum radiation bandwidth	$\Delta \lambda$	GL5HD60	$I_F = 20\text{mA}$	—	35	—	nm
Reverse current	I_R	GL5HD60	$V_R = 4\text{V}$	—	—	10	μA
Terminal capacitance	C_t	GL5HD60	$V = 0\text{V } f = 1\text{MHz}$	—	20	—	pF
Response frequency	f_c	GL5HD60	—	—	4	—	MHz

※3 Tolerance: $\pm 30\%$

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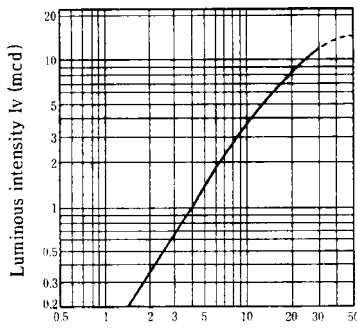
■ **Characteristics Diagrams**

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



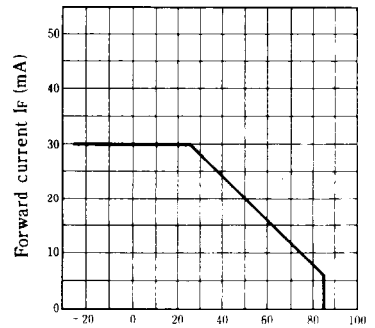
Forward voltage V_F (V)

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



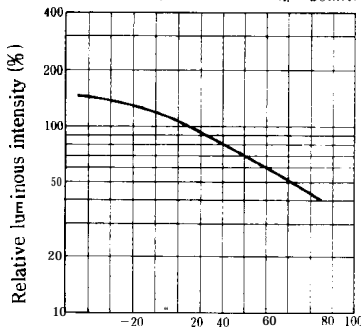
Forward current I_F (mA)

Forward Current Derating Curve



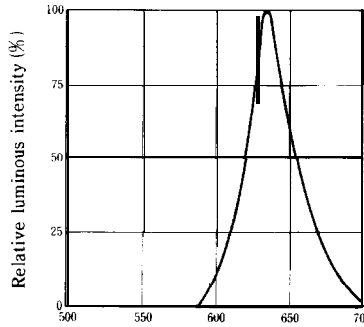
Ambient temperature T_a (°C)

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



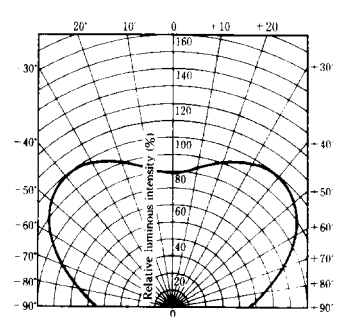
Ambient temperature T_a (°C)

Spectrum Distribution (Ta = 25°C)



Wavelength λ (nm)

Radiation Diagram (Ta = 25°C)



GL5EG60 (Yellow-green)

■ **Electro-optical** Characteristics

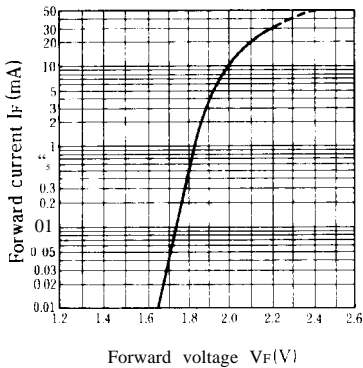
($T_a=25^\circ\text{C}$)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL5EG60	$I_F=20\text{mA}$		2.1	2.8	V
※3 Luminous intensity	I_v	GL5EG60	$I_F=20\text{mA}$	5.0	11	—	mcd
Peak emission wavelength	λ_p	GL5EG60	$I_F=20\text{mA}$		565	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL5EG60	$I_F=20\text{mA}$	—	30	—	nm
Reverse current	I_R	GL5EG60	$V_R=4\text{V}$	—		10	μA
Terminal capacitance	C_t	GL5EG60	$V=0\text{V}$ $f=1\text{MHz}$	—	35	—	pF
Response frequency	f_c	GL5EG60	—		4	—	MHz

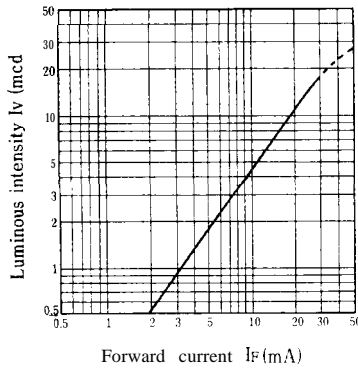
※3 Tolerance: $\pm 30\%$

■ **Characteristics Diagrams**

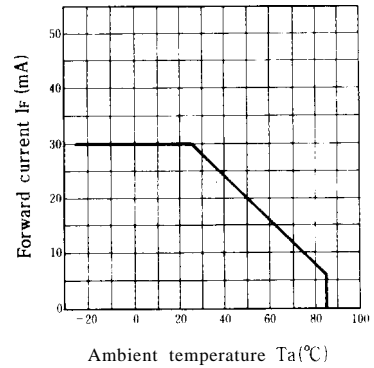
Forward Current vs. Forward Voltage



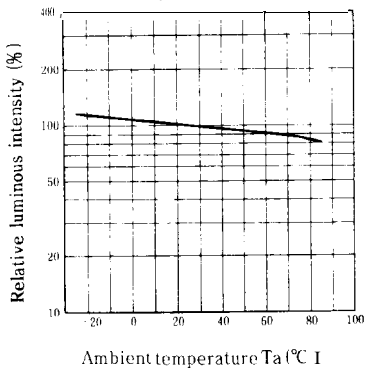
Luminous Intensity vs. Forward Current



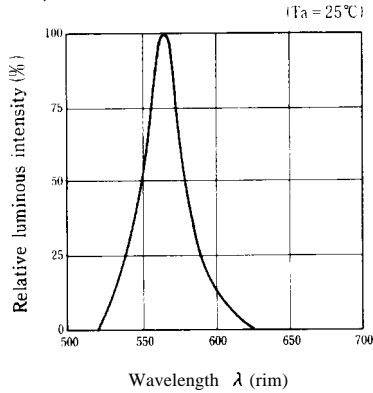
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



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

