

GL5□□71 Series

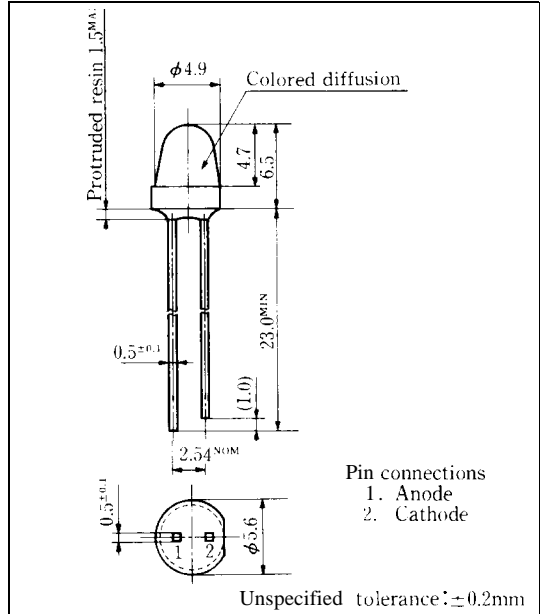
φ5mm(T-1³/₄) Cylinder Type LED Lamps

■ Model No.

GL5PR71 Red
 GL5HD71 Red
 GL5HS71 Sunset orange
 GL5HY71 Yellow
 GL5EG71 Yellow-green
 GL5KG71 Green

GaP
 GaAsP/GaP
 GaAsP/GaP
 GaAsP/GaP
 GaP
 GaP

■ Outline Dimensions (Unit: mm)



■ Features

1. φ5mm(T-1³/₄) all resin mold
2. Colored diffusion lens type
3. Low dome type

■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	GL5PR71	GL5HD71	GL5EG71			Unit
			GL5HS71	GL5KG71			
		GL5HY71					
Power dissipation	P	23	84	84			mW
Continuous forward current	I _F	10	30	30			mA
*1 Peak forward current	I _{FM}	50	50	50			mA
Derating factor	DC	- 0.13	0.40	0.40			mA/°C
	Pulse	- 0.67	0.67	0.67			mA/°C
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)				°C

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

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

SHARP

GL5PR71 (Red) / GL5HD71 (Red)

■ Electro-optical Characteristics

(Ta=25°C)

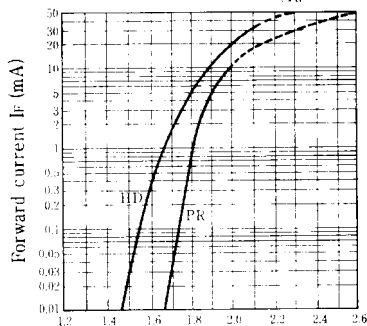
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL5PR71	I _F = 5mA	—	1.9	2.3	V
		GL5HD71	I _F = 20mA	—	2.0	2.8	
※3 Luminous intensity	I _v	GL5PR71	I _F = 5mA	2.5	7.0	—	mcd
		GL5HD71	I _F = 20mA	25	60	—	
Peak emission wavelength	λ _p	GL5PR71	I _F = 5mA	—	695	—	nm
		GL5HD71	I _F = 20mA	—	635	—	
Spectrum radiation bandwidth	Δλ	GL5PR71	I _F = 5mA	—	100	—	nm
		GL5HD71	I _F = 20mA	—	35	—	
Reverse current	I _R	GL5PR71	V _R = 4V	—	—	10	μA
		GL5HD71	V _R = 4V	—	—	10	
Terminal capacitance	C _t	GL5PR71	V = 0V f = 1 MHz	—	55	—	pF
		GL5HD71	V = 0V f = 1 MHz	—	20	—	
Response frequency	f _c	GL5PR71	—	—	4	—	MHz
		GL5HD71	—	—	4	—	

※3 Tolerance: ±30%

■ Characteristics Diagrams

Forward Current vs. Forward Voltage

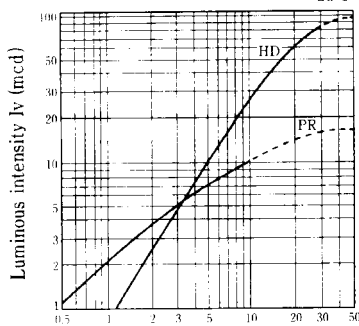
(Ta = 25°C)



Forward voltage V_F (V)

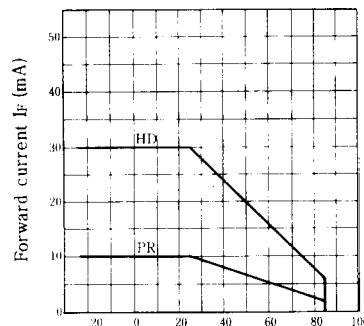
Luminous Intensity vs. Forward Current

(Ta = 25°C)



Forward current I_F (mA)

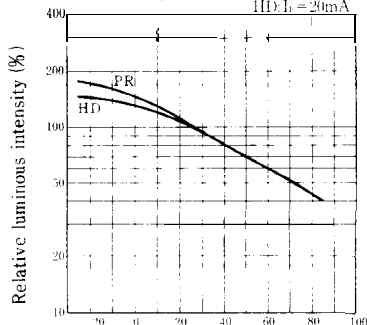
Forward Current Derating Curve



Ambient temperature T_a (°C)

Relative Luminous Intensity vs. Ambient Temperature

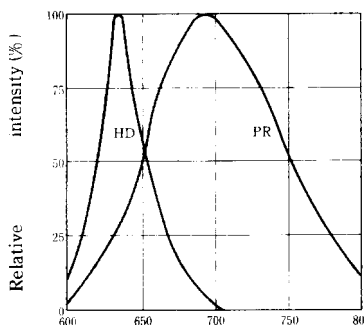
PR: I_F = 5mA
HD: I_F = 20mA



Ambient temperature T_a (°C)

Spectrum Distribution

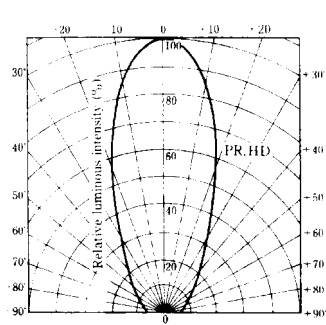
(Ta = 25°C)



Wavelength λ (nm)

Radiation Diagram

(Ta = 25°C)



GL5HS71 (Sunset orange) / GL5HY71 (Yellow)

■ Electro-optical Characteristics

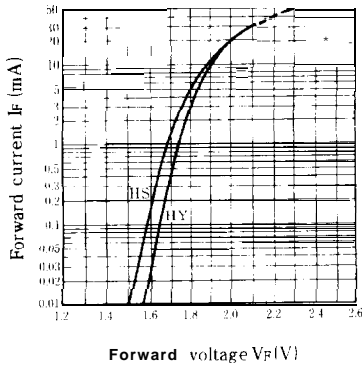
(Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL5HS71	I _F =20mA	—	2.0	2.8	V
		GL5HY71	I _F =20mA	—	2.0	2.8	
※3 Luminous intensity	I _v	GL5HS71	I _F =20mA	15	35	—	mcd
		GL5HY71	I _F =20mA	15	45	—	
Peak emission wavelength	λ _p	GL5HS71	I _F =20mA	—	610	—	nm
		GL5HY71	I _F =20mA	—	585	—	
Spectrum radiation bandwidth	Δλ	GL5HS71	I _F =20mA	—	35	—	°m
		GL5HY71	I _F =20mA	—	30	—	
Reverse current	I _r	GL5HS71	V _R =4V	—	—	10	μA
		GL5HY71	V _R =4V	—	—	10	
Terminal capacitance	C _t	GL5HS71	V=0V f=1 MHz	—	15	—	pF
		GL5HY71	V=0V f=1 MHz	—	35	—	
Response frequency	f _c	GL5HS71	—	—	4	—	MHz
		GL5HY71	—	—	4	—	

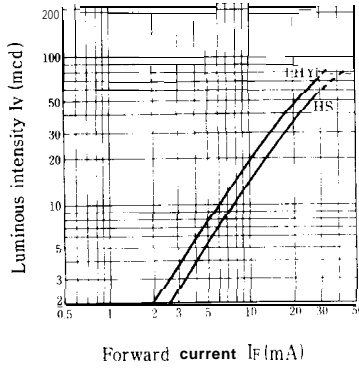
※3 Tolerance: ±30%

■ Characteristics Diagrams

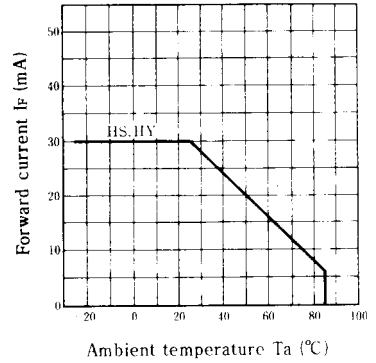
Forward Current vs. Forward Voltage (Ta=25°C)



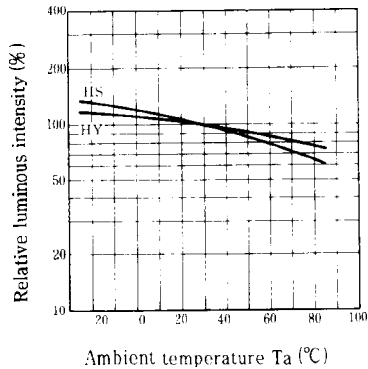
Luminous Intensity vs. Forward Current (Ta=25°C)



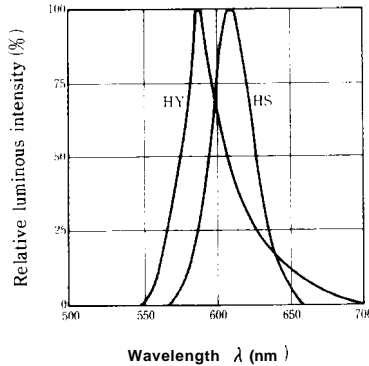
Forward Current Derating Curve



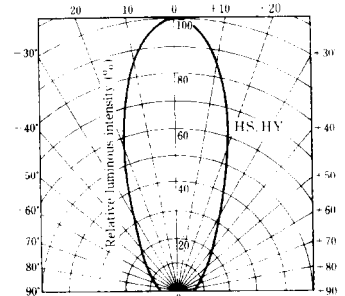
Relative Luminous Intensity vs. Ambient Temperature (If=20mA)



Spectrum Distribution (Ta=25°C)



Radiation Diagram (Ta=25°C)



GL5EG71 (Yellow-green) / GL5KG71 (Green)

■ Electro-optical Characteristics

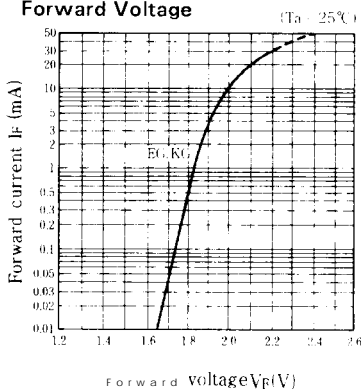
(Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL5EG71	I _F = 20mA		2.1	2.8	V
		GL5KG71	I _F = 20mA		2.1	2.8	
*3 Luminous intensity	I _v	GL5EG71	I _F = 20mA	30	65	-	'cd
		GL5KG71	I _F = 20mA	8.0	20	-	
Peak emission wavelength	λ _p	GL5EG71	I _F = 20mA	-	565	-	nm
		GL5KG71	I _F = 20mA	-	555	-	
Spectrum radiation bandwidth	Δλ	GL5EG71	I _F = 20mA	-	30	-	nm
		GL5KG71	I _F = 20mA	-	25	-	
Reverse current	I _R	GL5EG71	V _R = 4V	-	-	10	μA
		GL5KG71	V _R = 4V	-	-	10	
Terminal capacitance	C _t	GL5EG71	V = 0V f = 1MHz	-	35	-	pF
		GL5KG71	V = 0V f = 1MHz	-	40	-	
Response frequency	f _c	GL5EG71	-	-	4	-	MHz
		GL5KG71	-	-	4	-	

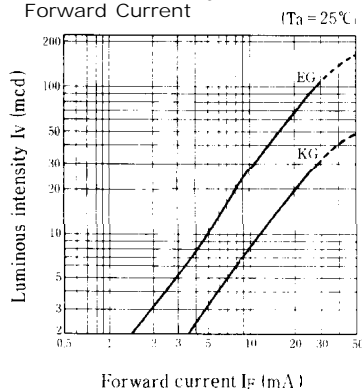
*3 Tolerance: ±30%

■ Characteristics Diagrams

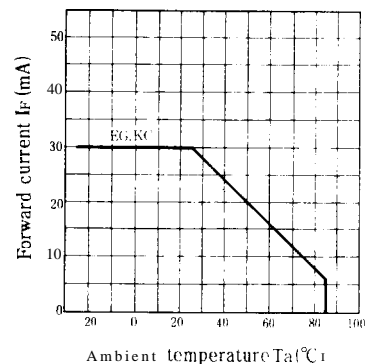
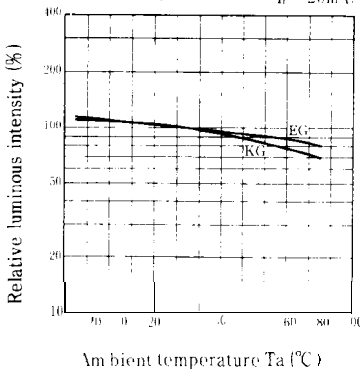
Forward Current vs. Forward Voltage



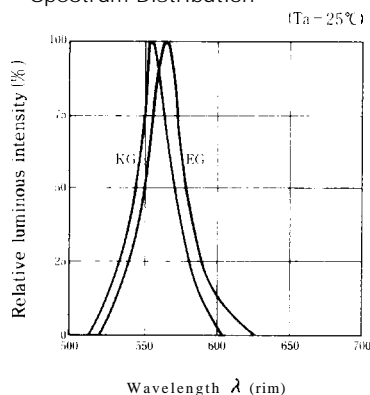
Luminous Intensity vs. Forward Current



Forward Current Derating Curve

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

Spectrum Distribution



Radiation Diagram

