

GL5□□46 Series ϕ 5mm(T-1 $\frac{3}{4}$) Cylinder Type LED Lamps

Model No.

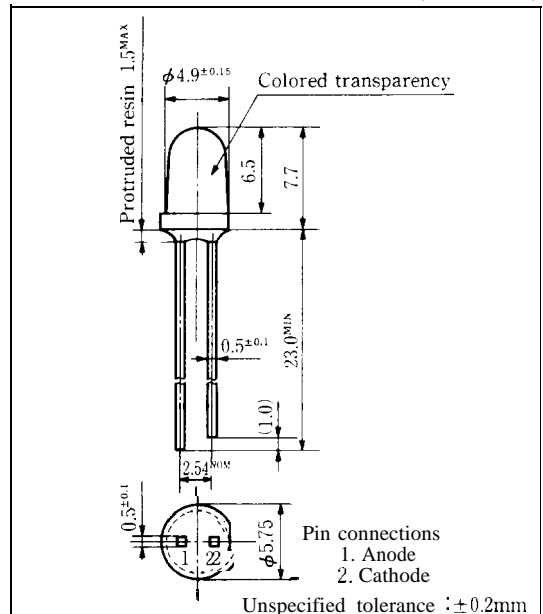
GL5PR46 Red

GL5KG46 Green

GaP

GaP

Outline Dimensions (Unit: mm)



Features

- ϕ 5mm(T-1 $\frac{3}{4}$) all resin mold
- Colored transparency lens type
- Wide viewing angle

Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	GL5PR46		GL5KG46		Unit
Power dissipation	P	23	84			mW
Continuous forward current	I _F	10	30			mA
*1 Peak forward current	I _{FM}	50	50			mA
Derating factor	DC	·	0.13	0.40		m A/°C
	Pulse	-	0.67	0.67		mA/°C
Reverse voltage	V _R	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

GL5PR46 (Red)

(Ta = 25°C)

■ Electro-optical Characteristics

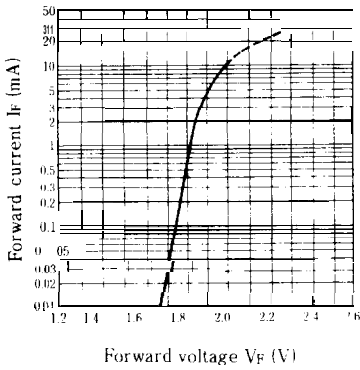
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL5PR46	$I_F = 5\text{mA}$		1.9	2.3	V
※3 Luminous intensity	I_v	GL5PR46	$I_F = 5\text{mA}$	4.0	12	—	mcd
Peak emission wavelength	λ_p	GL5PR46	$I_F = 5\text{mA}$	—	695	—	nm
Spectrum radiation bandwidth	$\Delta \lambda$	GL5PR46	$I_F = 5\text{mA}$	—	100	—	nm
Reverse current	I_R	GL5PR46	$V_R = 4\text{V}$			10	μA
Terminal capacitance	C_t	GL5PR46	$V = 0\text{V}, f = 1\text{MHz}$	—	55	—	pF
Response frequency	f_c	GL5PR46	—		4	—	MHz

※3 Tolerance: $\pm 30\%$

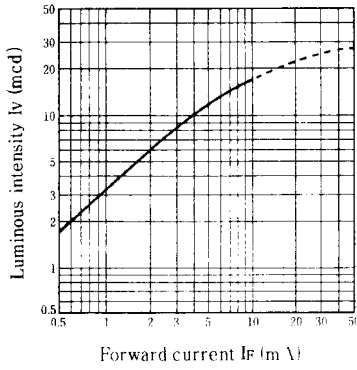
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■ Characteristics Diagrams

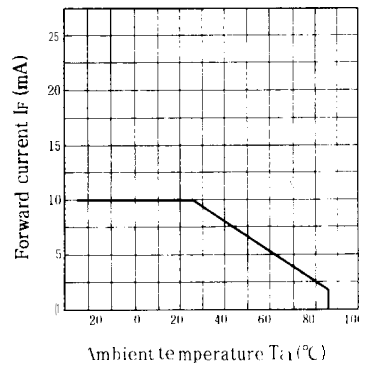
Forward Current vs. Forward Voltage (Ta = 25°C)



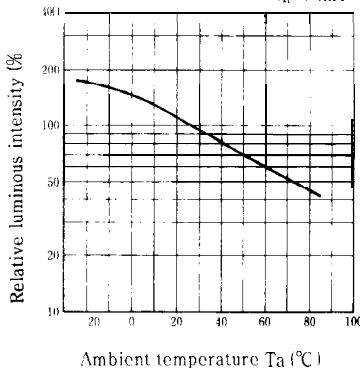
Luminous Intensity vs. Forward Current (Ta = 25°C)



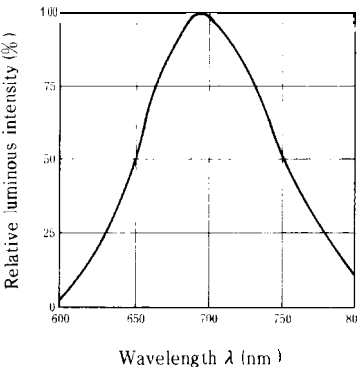
Forward Current Derating Curve



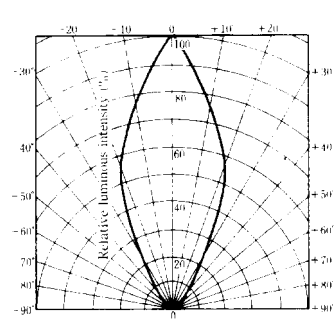
Relative Luminous Intensity vs. Ambient Temperature (IF = 5 mA)



Spectrum Distribution (Ta = 25°C)



Radiation Diagram (Ta = 25°C)



GL5KG46 (Green)

■ Electro-optical Characteristics

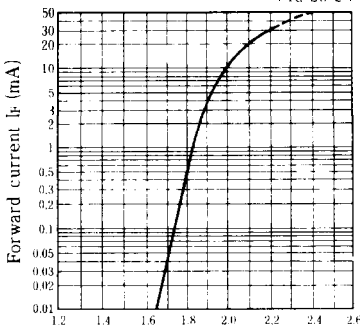
(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL5KG46	$I_F = 20\text{mA}$		2.1	2.8	V
※3 Luminous intensity	I_V	GL5KG46	$I_F = 20\text{mA}$	25	50	—	mcd
Peak emission wavelength	λ_p	GL5KG46	$I_F = 20\text{mA}$		555	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL5KG46	$I_F = 20\text{mA}$		25	—	nm
Reverse current	I_R	GL5KG46	$V_R = 4\text{V}$			10	μA
Terminal capacitance	C_t	GL5KG46	$V = 0\text{V}$ $f = 1\text{MHz}$	—	40	—	pF
Response frequency	f_c	GL5KG46	—		4	—	MHz

※3 Tolerance: $\pm 30\%$

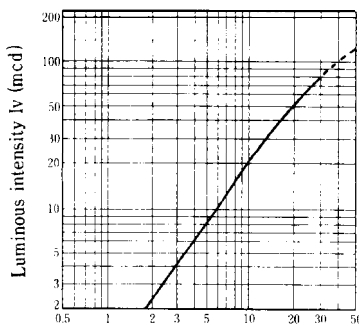
■ Characteristics Diagrams

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



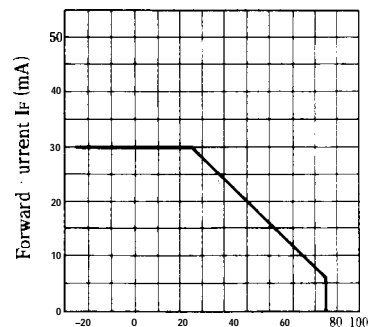
Forward voltage V_F (V)

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



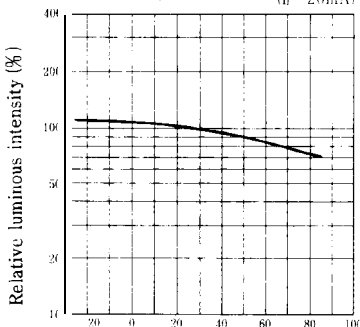
Forward current I_F (mA)

Forward Current Derating Curve



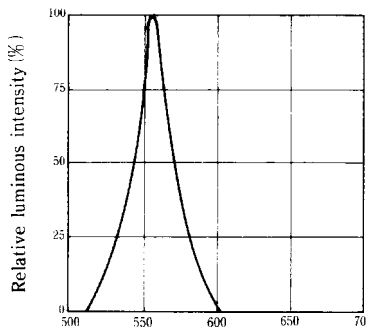
Ambient temperature T_a (°C)

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



Ambient temperature T_a (°C)

Spectrum Distribution (Ta = 25°C)



Wavelength λ (nm)

Radiation Diagram (Ta = 25°C)

