

GL046□□ Series

0.32mm' LED Chips

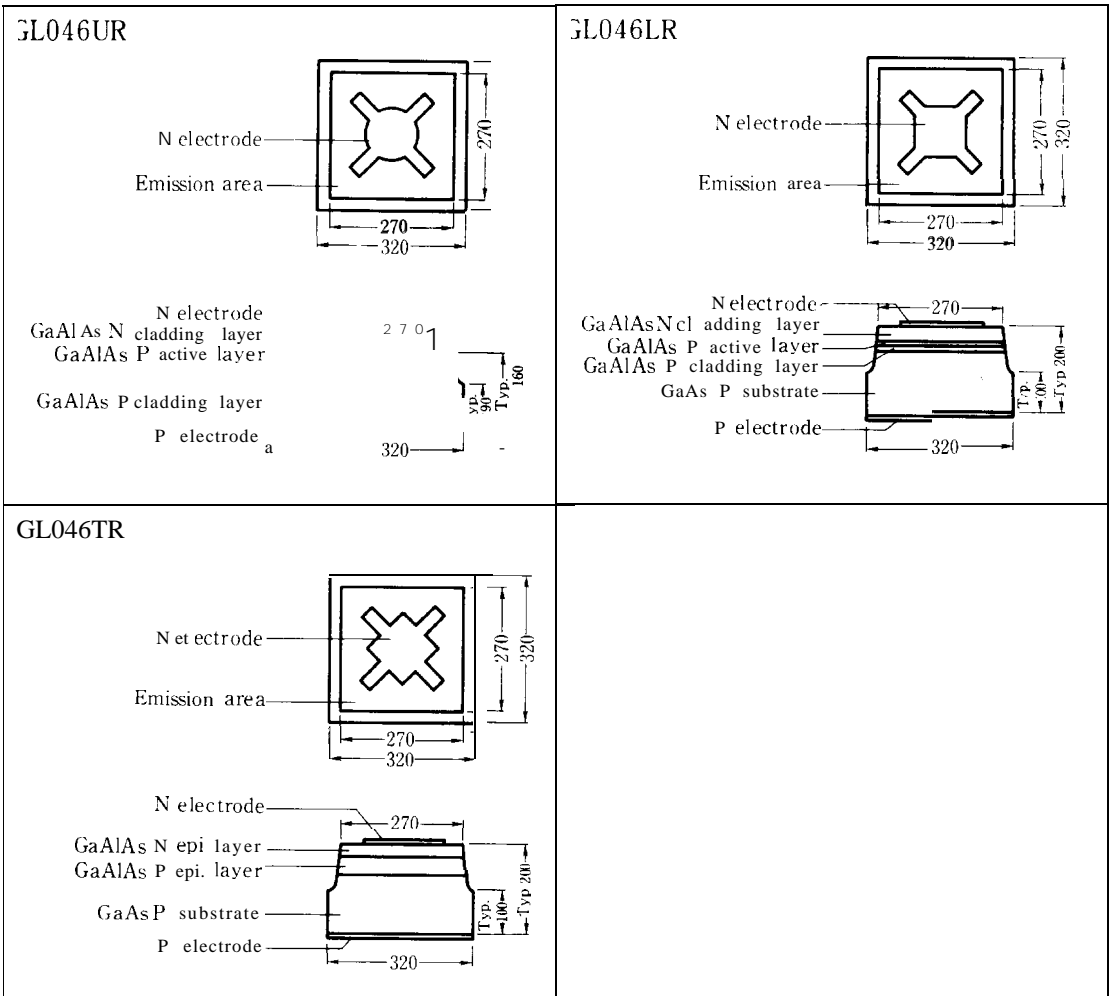
Model No.

GL046UR	Red (Super-luminosity)	GaAlAs/GaAlAs	Double-hetero
GL046LR	Red (High-luminosity)	GaAlAs/GaAs	Double-hetero
GL046TR	Red (High-luminosity)	GaAlAs/GaAs	Single-hetero

Features

1. Super or High-luminosity
2. Chip size : 0.32mm□
3. Emission area : 0.27mm□
4. Electrode N(Cathode) Side : Aluminum alloy
P(Anode) Side : Gold alloy

Outline Dimensions

(Unit: μm)

SHARP

GL046UR (Red)

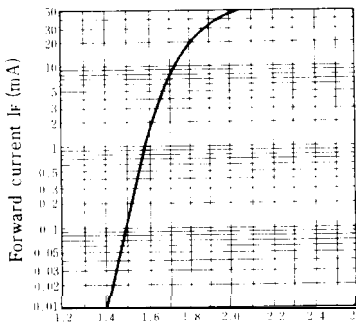
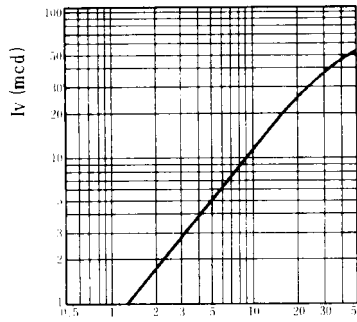
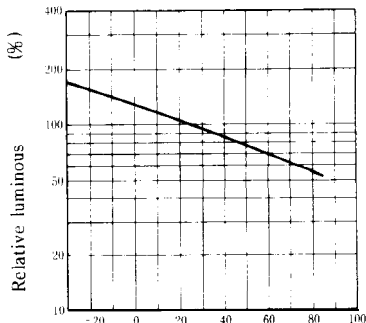
■ Electro-optical Characteristics

(Ta = 25°C)

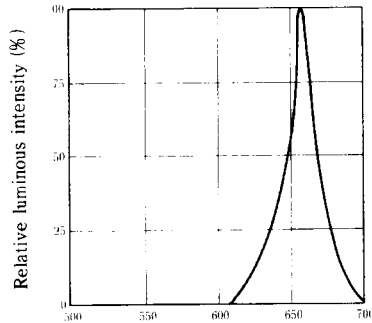
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL046UR	$I_F = 20\text{mA}$	—	1.8	2.0	V
*1 Luminous intensity	I_v	GL046UR	$I_F = 20\text{mA}$	14.0	25.0	—	mcd
Peak emission wavelength	λ_p	GL046UR	$I_F = 20\text{mA}$	—	660	—	nm
Spectrum width of half value	$\Delta\lambda$	GL046UR	$I_F = 20\text{mA}$	—	20	—	nm
Reverse current	I_R	GL046UR	$V_R = 3\text{V}$	—	—	10	μA
Capacitance	C_o	GL046UR	$V_o = 0\text{V}, f = 1\text{ MHz}$	—	30	—	pF
Response frequency	f_c	GL046UR	—	—	—	—	MHz

*1 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)Relative Luminous Intensity vs.
Ambient Temperature ($I_F = 20\text{mA}$)Ambient temperature T_a (°C)

Spectrum Distribution (Ta = 25°C)

Wavelength λ (nm)

GL046LR (Red) / GL046TR (Red)

■ Electro-optical Characteristics

(Ta = 25°C)

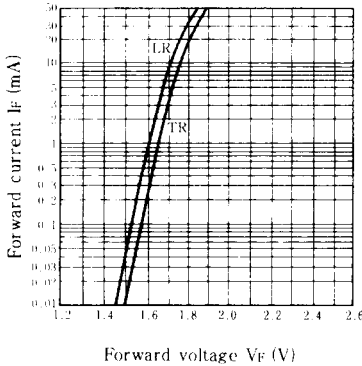
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL046LR	I _F = 20mA	—	1.75	2.00	V
		GL046TR	I _F = 20mA	—	1.80	2.00	
* 1 Luminous intensity	I _v	GL046LR	I _F = 20mA	7.5	12.5	—	mcd
		GL046TR	I _F = 20mA	4.0	8.0	—	
Peak emission wavelength	λ _p	GL046LR	I _F = 20mA	—	660	—	nm
		GL046TR	I _F = 20mA	—	660	—	
Spectrum width of half value	Δλ	GL046LR	I _F = 20mA	—	20	—	nm
		GL046TR	I _F = 20mA	—	20	—	
Reverse current	I _R	GL046LR	V _R = 3V	—	—	10	μA
		GL046TR	V _R = 3V	—	—	10	
Capacitance	C ₀	GL046LR	V ₀ = 0V f = 1MHz	—	30	—	pF
		GL046TR	V ₀ = 0V f = 1 MHz	—	25	—	
Response frequency	f _c	GL046LR	—	—	—	—	MHz
		GL046TR	—	—	—	—	

*1 Tolerance: ±30%

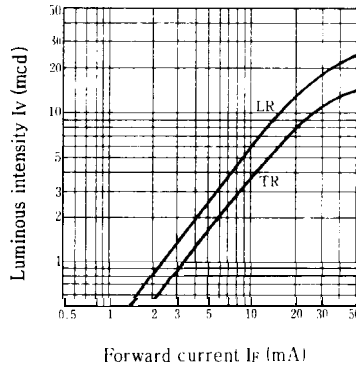
■ Characteristics Diagrams

Forward Current vs.
Forward Voltage

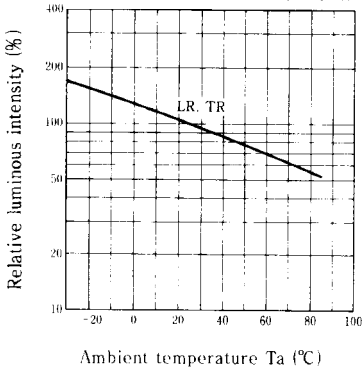
(Ta = 25°C)

Luminous Intensity vs.
Forward Current

(Ta = 25°C)

Relative Luminous Intensity vs.
Ambient Temperature

(If = 20mA)



Spectrum Distribution

(Ta = 25°C)

