

GL6□□23T Series

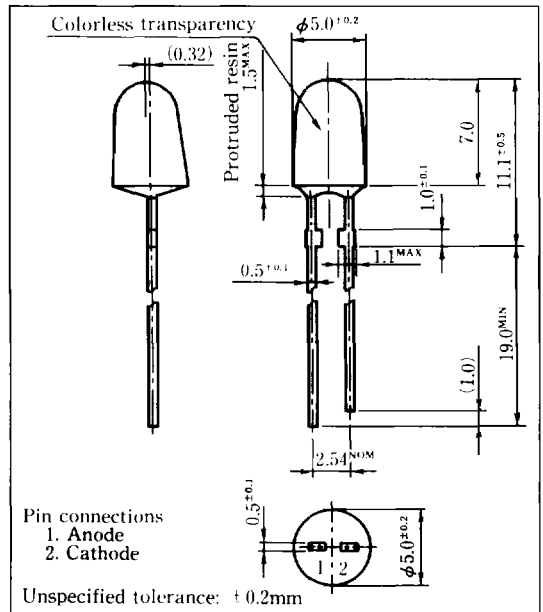
φ 5mm (T-1 $\frac{3}{4}$) Cylinder Type
LED Lamps

Model No.

GL6UR23T	Red (Super-luminosity)	GaAlAs/GaAlAs
GL6LR23T	Red (High-luminosity)	GaAlAs/GaAs
GL6EG23T	Yellow-green	GaP

Outline Dimensions

(Unit: mm)



Features

1. φ 5mm (T-1 $\frac{3}{4}$) all resin mold
2. Colorless transparency lens type
3. Wide viewing angle
4. High density mounting (flangeless package)
5. Light axis change type

Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	GL6UR23T	GL6LR23T	GL6EG23T			Unit	
Power dissipation	P	75	110	84			mW	
Continuous forward current	I _F	30	50	30			mA	
*1 Peak forward current	I _{FM}	50	300	50			mA	
Derating factor	DC	—	0.40	0.67	0.40		mA/°C	
	Pulse	—	0.67	4.00	0.67		mA/°C	
Reverse voltage	V _R	4	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
Duty ratio = 1/16, Pulse width ≤ 1ms for GL6LR23T

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

SHARP

GL6UR23T (Red)

Electro-optical Characteristics

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL6UR23T	I _F = 20mA	—	1.85	2.5	V
*3 Luminous intensity	I _v	GL6UR23T	I _F = 20mA	125	300	—	mcd
Peak emission wavelength	λ _p	GL6UR23T	I _F = 20mA	—	660	—	nm
Spectrum radiation bandwidth	Δλ	GL6UR23T	I _F = 20mA	—	20	—	nm
Reverse current	I _R	GL6UR23T	I _F = 20mA	—	—	100	μA
Terminal capacitance	C _t	GL6UR23T	I _F = 20mA	—	25	—	pF
Response frequency	f _c	—	—	—	—	—	MHz

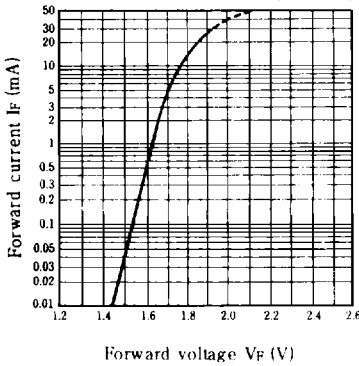
*3 Tolerance: ±15%

3

Characteristics Diagrams

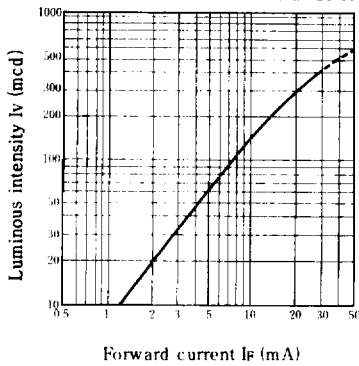
Forward Current vs. Forward Voltage

(Ta = 25°C)

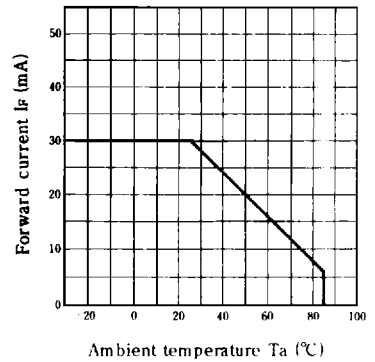


Luminous Intensity vs. Forward Current

(Ta = 25°C)

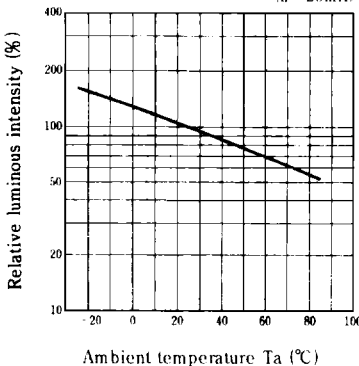


Forward Current Derating Curve



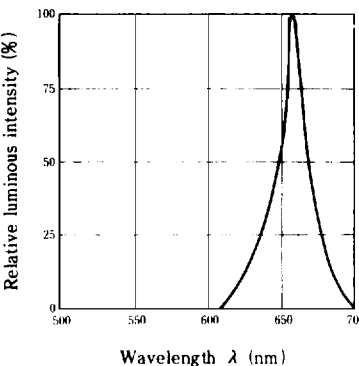
Relative Luminous Intensity vs. Ambient Temperature

(I_F = 20mA)



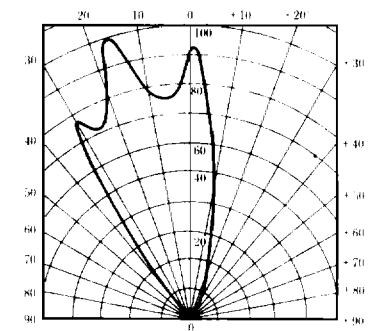
Spectrum Distribution

(Ta = 25°C)



Radiation Diagram

(Ta = 25°C)



GL6LR23T (Red)

■ Electro-optical Characteristics

(Ta = 25°C)

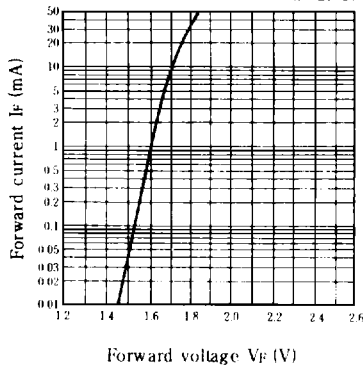
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL6LR23T	$I_F = 20\text{mA}$	—	1.75	2.2	V
*3 Luminous intensity	I_V	GL6LR23T	$I_F = 20\text{mA}$	45	125	—	mcd
Peak emission wavelength	λ_p	GL6LR23T	$I_F = 20\text{mA}$	—	660	—	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL6LR23T	$I_F = 20\text{mA}$	—	20	—	nm
Reverse current	I_R	GL6LR23T	$V_R = 4\text{V}$	—	—	10	μA
Terminal capacitance	C_t	GL6LR23T	$V = 0\text{V}$ $f = 1\text{MHz}$	—	30	—	pF
Response frequency	f_c	—	—	—	—	—	MHz

*3 Tolerance: $\pm 15\%$

■ Characteristics Diagrams

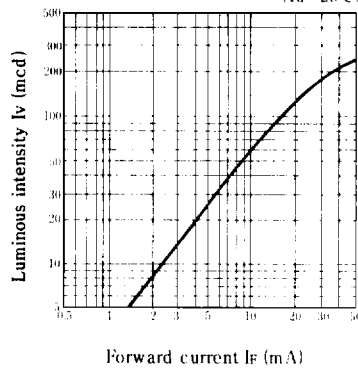
Forward Current vs. Forward Voltage

(Ta = 25°C)

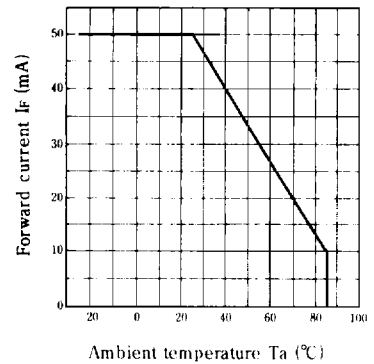


Luminous Intensity vs. Forward Current

(Ta = 25°C)

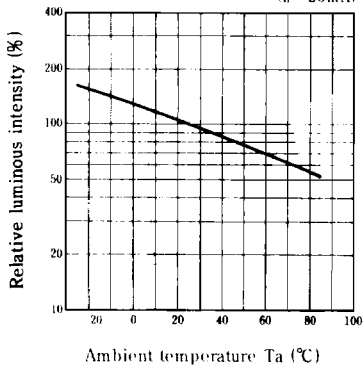


Forward Current Derating Curve



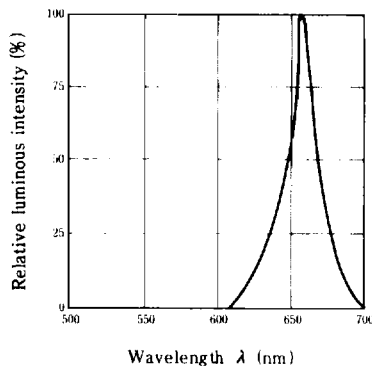
Relative Luminous Intensity vs. Ambient Temperature

(If = 20mA)



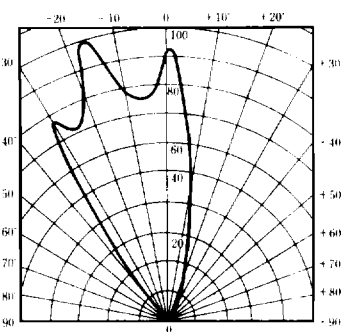
Spectrum Distribution

(Ta = 25°C)



Radiation Diagram

(Ta = 25°C)



GL6EG23T (Yellow-green)

Electro-optical Characteristics

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	GL6EG23T	I _F = 20mA	—	2.1	2.8	V
※3 Luminous intensity	I _v	GL6EG23T	I _F = 20mA	45	125	—	mcd
Peak emission wavelength	λ _p	GL6EG23T	I _F = 20mA	—	565	—	nm
Spectrum radiation bandwidth	Δλ	GL6EG23T	I _F = 20mA	—	30	—	nm
Reverse current	I _R	GL6EG23T	V _R = 4V	—	—	10	μA
Terminal capacitance	C _t	GL6EG23T	V = 0V f = 1MHz	—	35	—	pF
Response frequency	f _c	—	—	—	—	—	MHz

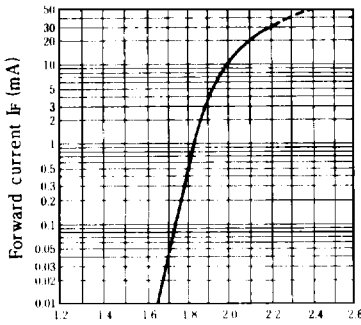
※3 Tolerance: ±15%

3

Characteristics Diagrams

Forward Current vs. Forward Voltage

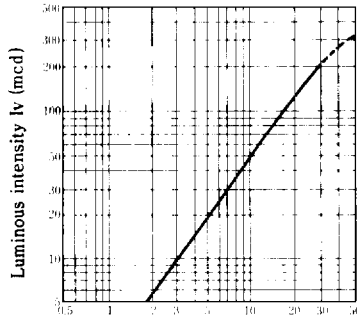
(Ta = 25°C)



Forward voltage V_F (V)

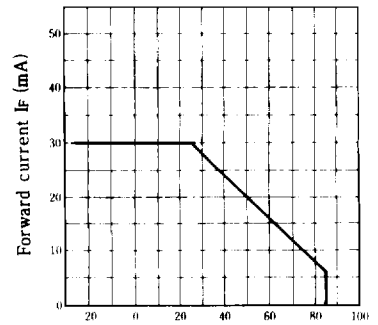
Luminous Intensity vs. Forward Current

(Ta = 25°C)



Forward current I_F (mA)

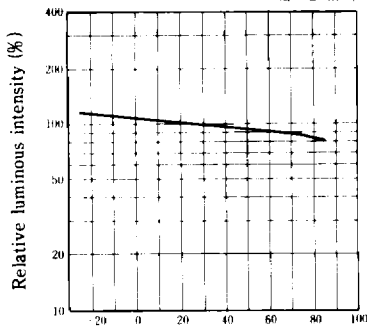
Forward Current Derating Curve



Ambient temperature T_a (°C)

Relative Luminous Intensity vs. Ambient Temperature

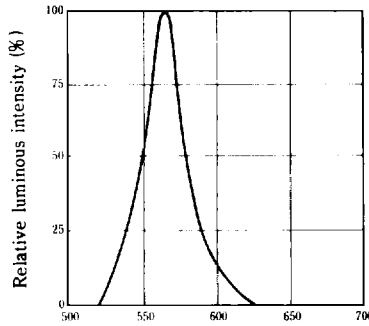
(I_F = 20mA)



Ambient temperature T_a (°C)

Spectrum Distribution

(Ta = 25°C)



Wavelength λ (nm)

Radiation Diagram

(Ta = 25°C)

