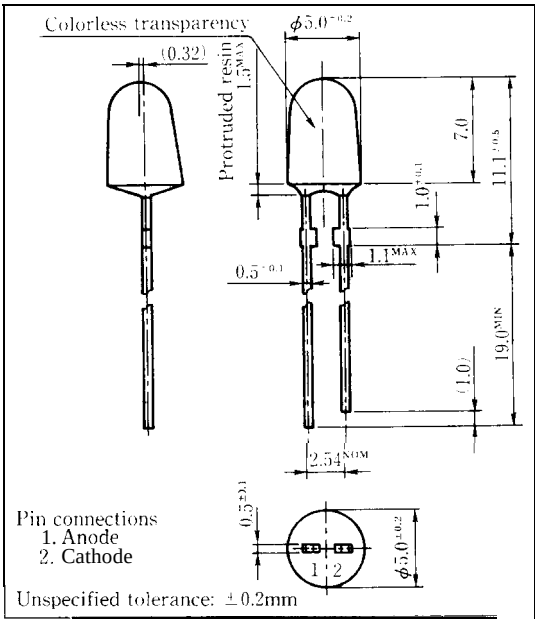
GL6□□23T Series

ϕ 5mm (T-1 ¾) 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. ϕ5mm (T-1¾) 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℃)

Parameter		Symbol	GL6UR23T	GL6LR23T	GL6EG23T			Unit
Power dissipation		P	75	110	84			mW
Continuous forward current		IF	30	50	30			mA
※1 Peak forward current		IFM	50	300	50			mA
Derating factor	DC	—	0.40	0.67	0.40			mA/℃
	Pulse		0.67	4.00	0.67			mA/℃
Reverse voltage		VR	4	5	5			V
Operating temperature		Topr	−25 to +85					℃
Storage temperature		Tstg	−25 to +100					℃
※2 Soldering temperature		Tsol	260(within 5 seconds)					℃

※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

GL6UR23T (Red)

■ Electro-optical Characteristics

(Ta=25℃)

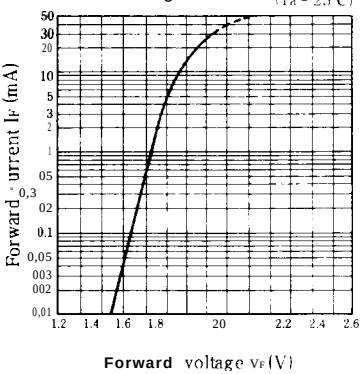
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL6UR23T	I_F=20mA		1,85	2,5	V
※3 Luminous intensity	I_V	GL6UR23T	I_F=20mA	125	300	–	mcd
Peak emission wavelength	λ_p	GL6UR23T	I_F=20mA	–	660	–	nm
Spectrum radiation bandwidtb	$\Delta\lambda$	GL6UR23T	I_F=20mA		20	–	nm
Reverse 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%

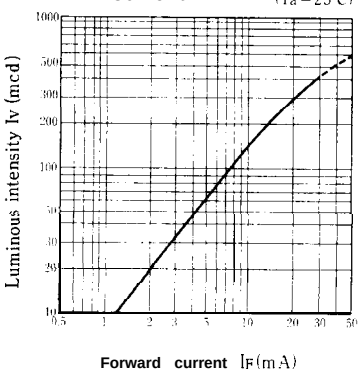
3

■ Characteristics Diagrams

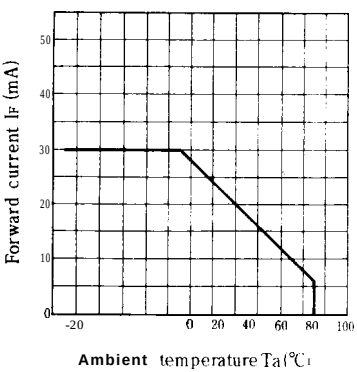
Forward Current vs. Forward Voltage (Ta = 25℃)



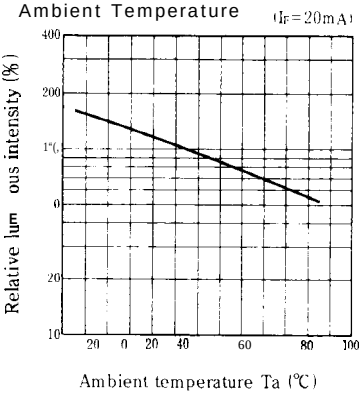
Luminous Intensity **vs.** **Forward** Current (Ta=25℃)



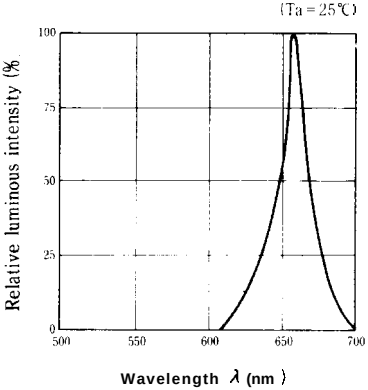
Forward Current Derating Curve



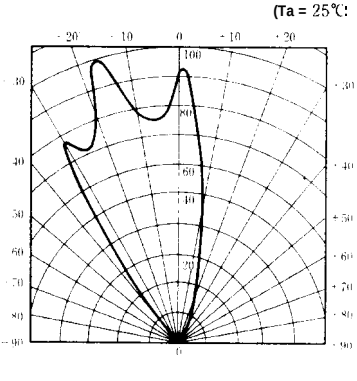
Relative Luminous Intensity vs. Ambient Temperature (IF=20mA)



Spectrum Distribution (Ta=25℃)



Radiation Diagram (Ta = 25℃)



GL6LR23T (Red)

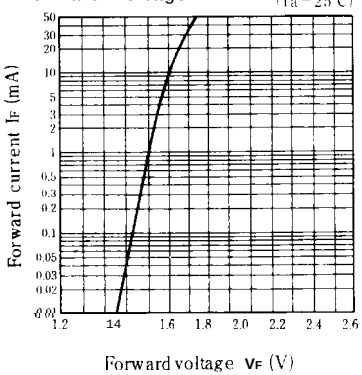
■ Electro-optical Characteristics (Ta = 25℃)

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

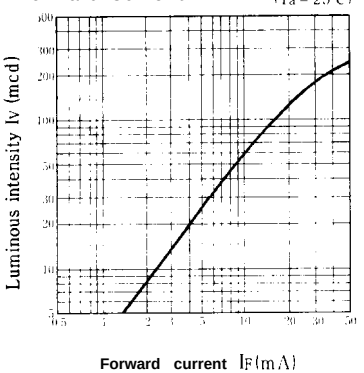
※3 **Tolerance:** ±15%

■ Characteristics Diagrams

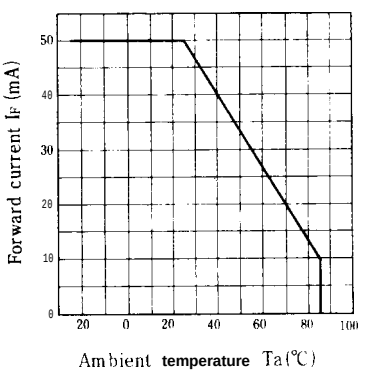
Forward Current vs. Forward Voltage (Ta = 25℃)



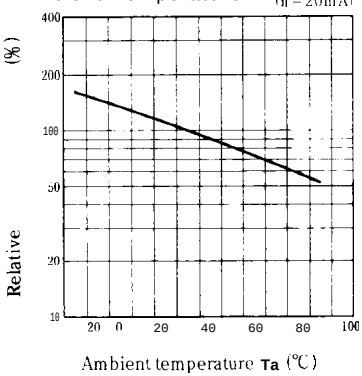
Luminous Intensity vs. Forward Current (Ta = 25℃)



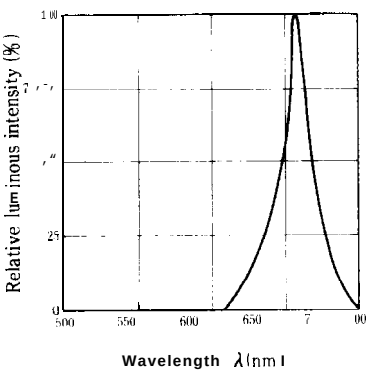
Forward Current **Derating** Curve



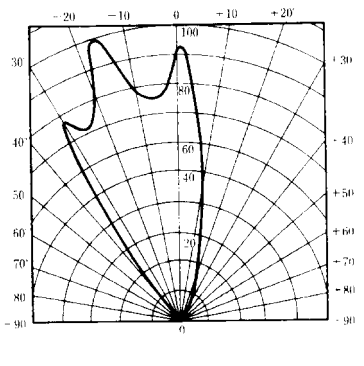
Relative Luminous Intensity vs. Ambient Temperature (IF = 20mA)



Spectrum Distribution (Ta = 25℃)



Radiation Diagram (Ta = 25℃)



GL6EG23T (Yellow-green)

■ Electro-optical Characteristics

(Ta=25°C)

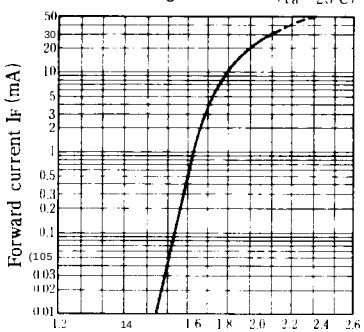
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL6EG23T	I_F=20mA	–	2.1	2.8	V
※3 Luminous intensity	I_V	GL6EG23T	I_F=20mA	45	125	–	mcd
Peak emission wavelength	λ_p	GL6EG23T	I_F=20mA		565	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL6EG23T	I_F=20mA		30	–	nm
Reverse current	I_R	GL6EG23T	V_R=4V	–	–	10	μA
Terminal capacitance	C_t	GL6EG23T	V=0V f=1 MHz	–	35	–	pF
Response frequency	f_c			–	–	–	MHz

※3 Tolerance: ±15%

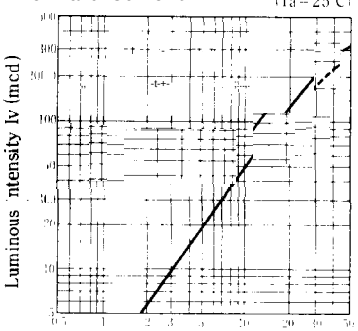
3

■ Characteristics Diagrams

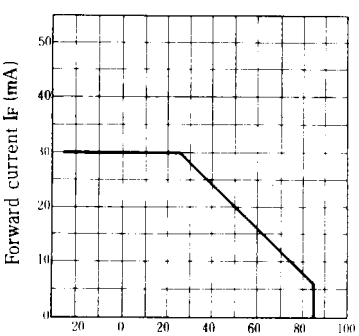
Forward Current vs. Forward Voltage



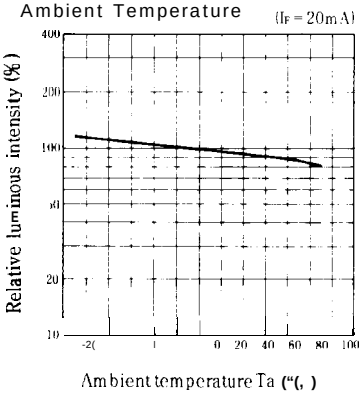
Luminous Intensity vs. Forward Current



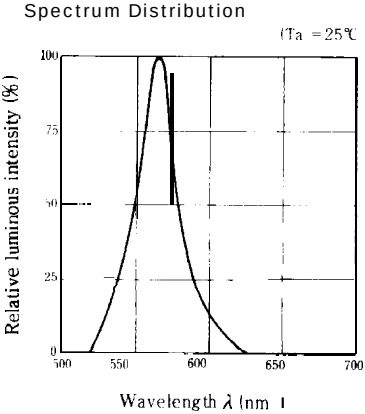
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



Radiation Diagram