GL1□□33 Series

Side Emission Type LED Lamps

■ Model No.

GL1UR33	Red(Super-luminosity)	GaAlAs/GaAlAs
GL1LR33	Red(High-luminosity)	GaAlAs/GaAs
GL1EG33	Yellow-green	GaP

■ Features

1. Side emission type
2. Colorless transparency lens
3. High density mounting type

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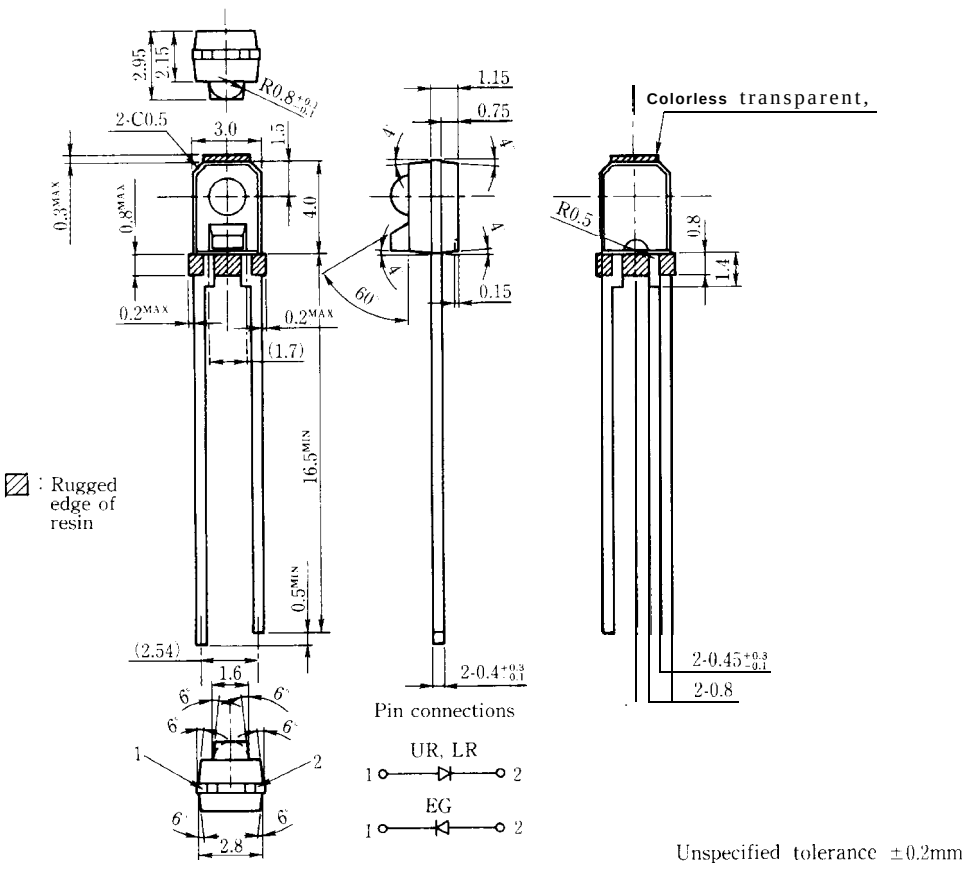
■ Outline Dimensions

(Unit : mm)



GL1□□33

■ Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	GL1UR33	GL1LR33	GL1EG33			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

※1 Duty ratio= 1/10, Pulse width=0.1ms
Duty ratio= 1/16, Pulse width≦1ms for GL1LR33

GL1UR33(Red)

■Electro-optical Characteristics

(Ta = 25")

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL1UR33	I_F = 20mA		1.85	2.5	V
※2 Luminous intensity	I_V	GL1UR33	I_F = 20mA	100	250		mcd
Peak emission wavelength	λ_P	GL1UR33	I_F = 20mA		660	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL1UR33	I_F = 20mA		20		nm
Reverse current	I_R	GL1UR33	V_R = 3V	—	—	100	μA
Terminal capacitance	C_t	GL1UR33	V = 0V f = 1MHz		25	—	pF
Response frequency	f_c				8	—	MHz

※2 Tolerance : ±30%

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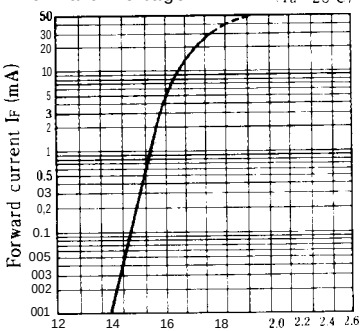
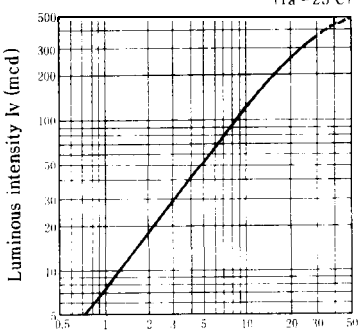
■Characteristics Diagrams

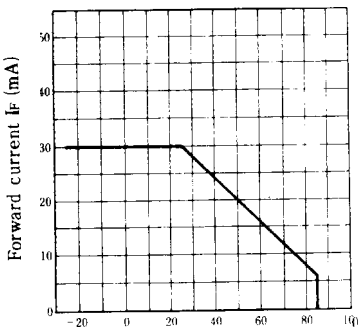
Forward Current vs. Forward Voltage (Ta = 25℃)



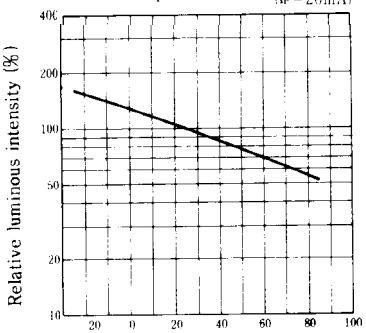
Luminous Intensity vs. Forward Current (Ta = 25℃)



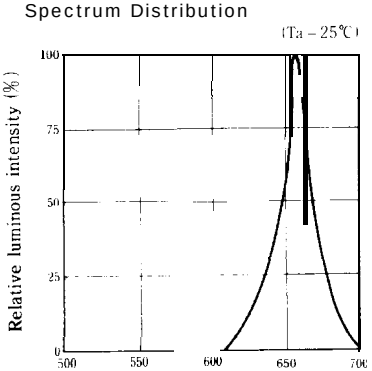
Forward Current Derating Curve



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



Spectrum Distribution (Ta = 25℃)



GL1LR33(Red)

■ Electro-optical Characteristics

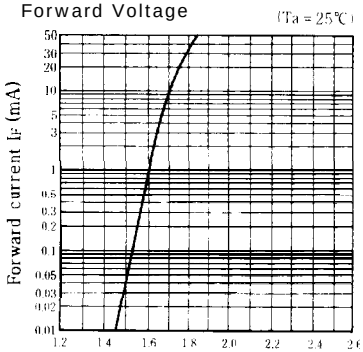
(Ta=25°)

Parameter	Symbol	Model No,	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL1LR33	I_F=20mA		1.75	2.2	V
※2 Luminous intensity	I_v	GL1LR33	I_F=20mA	35	100	–	mcd
Peak emission wavelength	λ_P	GL1LR33	I_F=20mA	–	660	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL1LR33	I_F=20mA		20	–	nm
Reverse current	I_R	GL1LR33	V=4V	–	–	10	μA
Terminal capacitance	C_t	GL1LR33	V=0V f=1MH	–	30	·	pF
Response frequency	f_c	GL1LR33	–		8		MHz

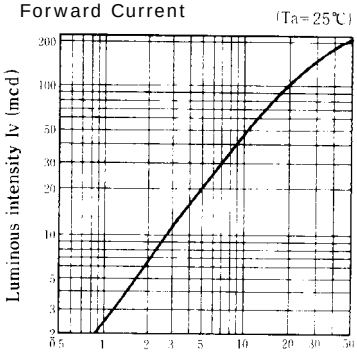
※2 Tolerance : ±30%

■ Characteristics Diagrams

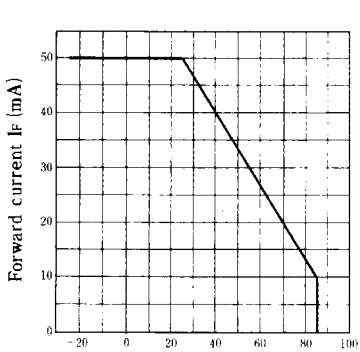
Forward Current vs. Forward Voltage



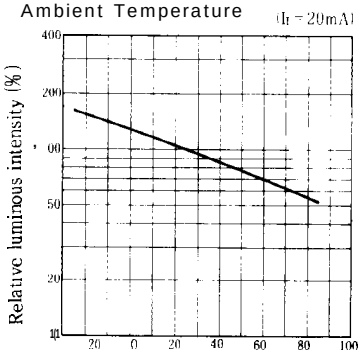
Luminous Intensity vs. Forward Current



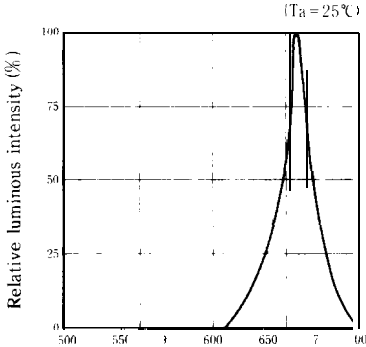
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



GLI EG33(Yellow-green)

■Electro-optical Characteristics

(Ta=25°)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	GL1EG33	I_F=20mA		2.1	2.8	V
※2 Luminous intensity	I_v	GL1EG33	I_F=20mA	25	55	–	mcd
Peak emission wavelength	λ_P	GL1EG33	I_F=20mA		565	–	nm
Spectrum radiation bandwidth	$\Delta\lambda$	GL1EG33	I_F=20mA		30	—	nm
Reverse current	I_R	GL1EG33	V=4V			10	μA
Terminal capacitance	C_t	GL1EG33	V=0V f=1MH	–	35		pF
Response frequency	f_c	GL1EG33			4		MHz

※2 Tolerance : ±30%

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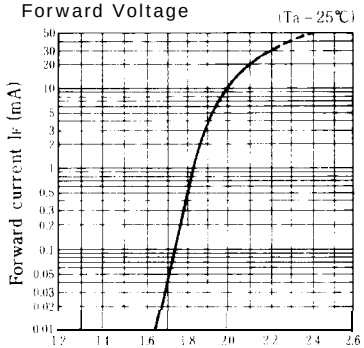
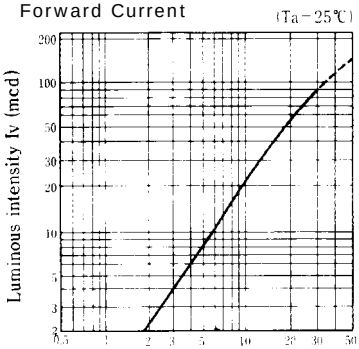
■ Characteristics Diagrams

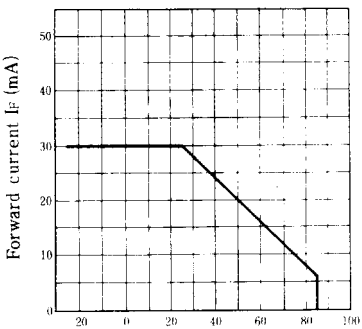
Forward Current vs. Forward Voltage



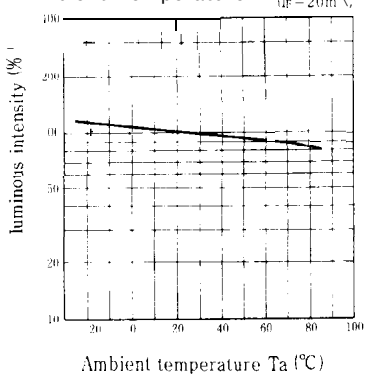
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution