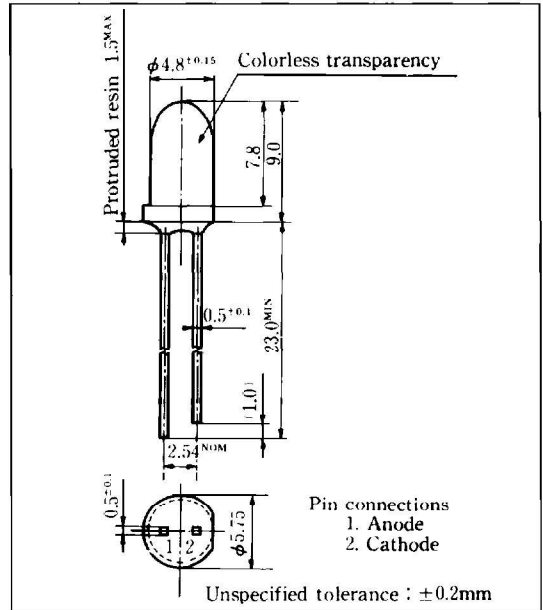


# GL5□□43 Series $\phi$ 5mm(T-1 3/4) Cylinder Type LED Lamps

## Model No.

GL5LR43	Red (High-luminosity)	GaAlAs/GaAs
GL5TR43	Red (High-luminosity)	GaAlAs/GaAs
GL5HD43	Red	GaAsP/GaP
GL5HY43	Yellow	GaAsP/GaP
GL5EG43	Yellow-green	GaP

## Outline Dimensions (Unit: mm)



## Features

- $\phi$  5mm(T-1 3/4) all resin mold
- Colorless transparency lens type
- High directivity

## Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	GL5LR43	GL5HD43	GL5EG43	Unit	
		GL5TR43	GL5HY43			
Power dissipation	P	110	84	84	mW	
Continuous forward current	I <sub>F</sub>	50	30	30	mA	
*1 Peak forward current	I <sub>FM</sub>	300	50	50	mA	
Derating factor	DC	—	0.67	0.40	0.40	mA/°C
	Pulse	—	4.00	0.67	0.67	mA/°C
Reverse voltage	V <sub>R</sub>	5	5	5	V	
Operating temperature	T <sub>opr</sub>	-25 to +85			°C	
Storage temperature	T <sub>stg</sub>	-25 to +100			°C	
*2 Soldering temperature	T <sub>sol</sub>	260(within 5 seconds)			°C	

\*1 Duty ratio = 1/10, Pulse width = 0.1ms

Duty ratio = 1/16, Pulse width  $\leq$  1ms for GL5LR43 and GL5TR43

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

**SHARP**

**GL5LR43 (Red) / GL5TR43 (Red)**

**■ Electro-optical Characteristics**

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	GL5LR43	I <sub>F</sub> = 20mA	—	1.75	2.2	V
		GL5TR43	I <sub>F</sub> = 20mA	—	1.75	2.2	
*3 Luminous intensity	I <sub>v</sub>	GL5LR43	I <sub>F</sub> = 20mA	600	1200	—	mcd
		GL5TR43	I <sub>F</sub> = 20mA	200	500	—	
Peak emission wavelength	λ <sub>p</sub>	GL5LR43	I <sub>F</sub> = 20mA	—	660	—	nm
		GL5TR43	I <sub>F</sub> = 20mA	—	660	—	
Spectrum radiation bandwidth	Δλ	GL5LR43	I <sub>F</sub> = 20mA	—	20	—	nm
		GL5TR43	I <sub>F</sub> = 20mA	—	20	—	
Reverse current	I <sub>R</sub>	GL5LR43	V <sub>R</sub> = 4V	—	—	10	μA
		GL5TR43	V <sub>R</sub> = 4V	—	—	10	
Terminal capacitance	C <sub>t</sub>	GL5LR43	V = 0V f = 1MHz	—	30	—	pF
		GL5TR43	V = 0V f = 1MHz	—	30	—	
Response frequency	f <sub>c</sub>	GL5LR43	—	—	8	—	MHz
		GL5TR43	—	—	8	—	

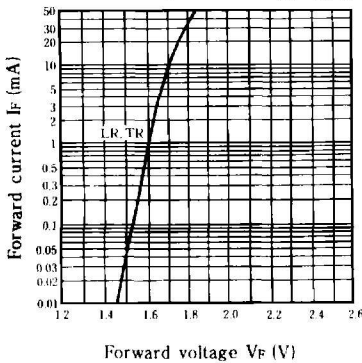
\*3 Tolerance: ±30%

**3**

**■ Characteristics Diagrams**

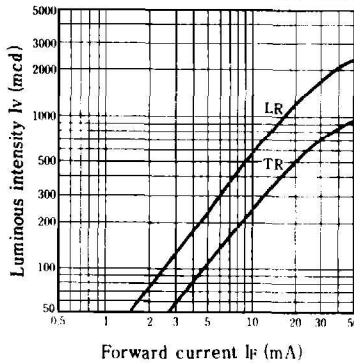
**Forward Current vs. Forward Voltage**

(Ta = 25°C)

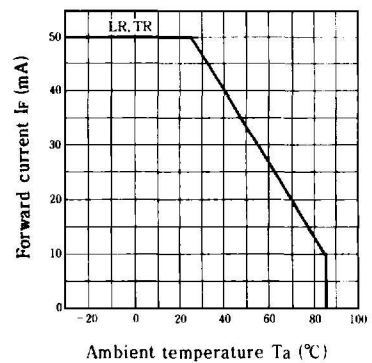


**Luminous Intensity vs. Forward Current**

(Ta = 25°C)

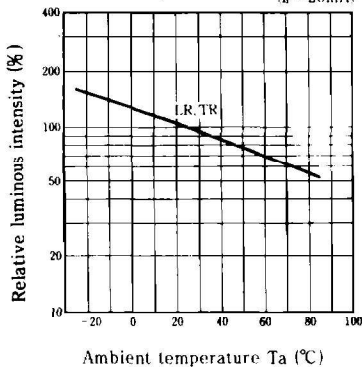


**Forward Current Derating Curve**



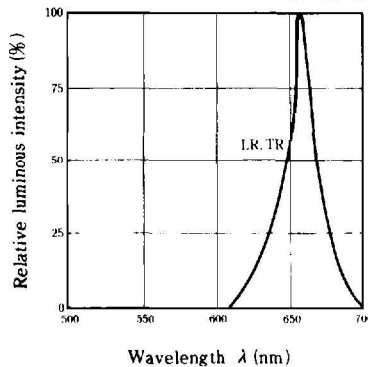
**Relative Luminous Intensity vs. Ambient Temperature**

(If = 20mA)



**Spectrum Distribution**

(Ta = 25°C)



**Radiation Diagram**

(Ta = 25°C)

