

Super-luminosity LED Lamp/High-luminosity LED Lamp

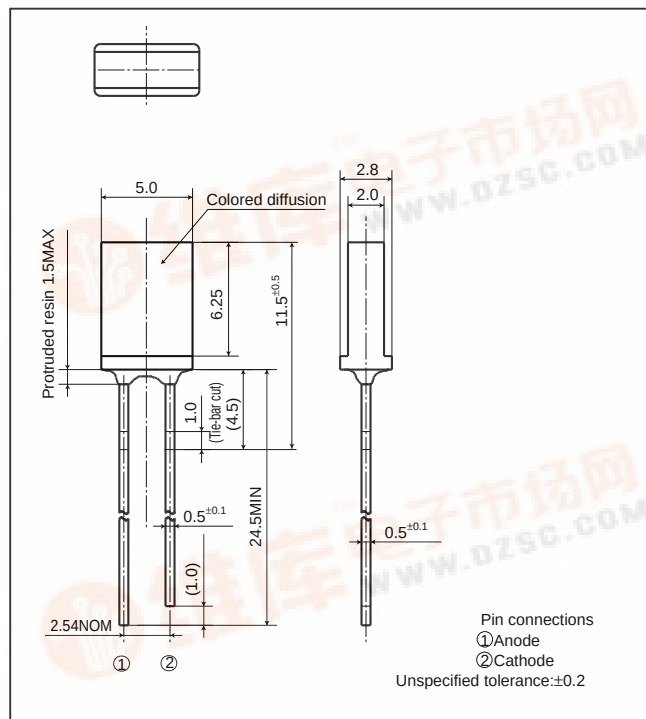
GL8□□21 series

GL8021 series

**2.0 X 5.0mm, Rectangle Type,
Colored Diffusion, High-luminosity
LED Lamps for Indicator**

■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

(T_a=25°C)

Model No.	Radiation color	Radiation material	Power dissipation P (mW)	Forward current I _F (mA)	Peak forward current I _{FM} (mA)	Derating factor (mA/°C)		Reverse voltage V _R (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{sig} (°C)	Soldering temperature T _{sol} ^{s-3} (°C)
						DC	Pulse				
GL8UR21	Red(Super-luminosity)	GaAlAs on GaAlAs	75	30	50 ^{*1}	0.40	0.67	4	-25 to +85	-25 to +100	260
GL8TR21	Red(High-luminosity)	GaAlAs on GaAs	110	50	300 ^{*2}	0.67	4.00	5	-25 to +85	-25 to +100	260

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

*2 Duty ratio=1/16, Pulse width $\leq$ 1ms

*3 5s or less(At the position of 1.6mm or more from the bottom face of resin package)

■ Electro-optical Characteristics

(T_a=25°C)

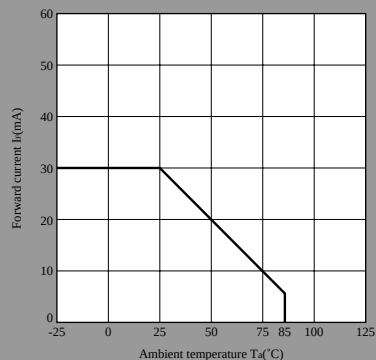
Lens type	Model No.	Forward voltage V _F (V)		Peak emission wavelength		Luminous intensity		Spectrum radiation bandwidth		Reverse current		Terminal capacitance		Page for characteristics diagrams
		TYP	MAX	λ _p (nm)	I _F	I _v (mcd)	I _F	Δλ(nm)	I _F	I _R (μA)	V _R	C _t (pF)		
				TYP	(mA)	TYP	(mA)	TYP	(mA)	TYP	(V)	TYP	(MHz)	
Colored diffusion	GL8UR21	1.85	2.5	660	20	16.0	20	20	20	100	3	25	1	→
	GL8TR21	1.75	2.2	660	20	4.0	20	20	20	10	4	30	1	→



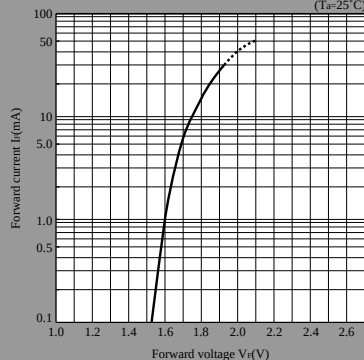
LED Lamp Characteristics Diagrams

UR series

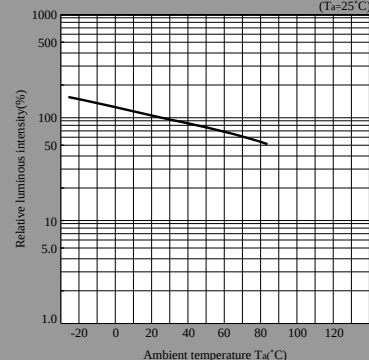
Forward Current Derating Curve



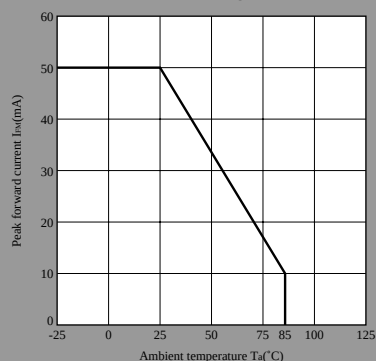
Forward Current vs. Forward Voltage(Note)



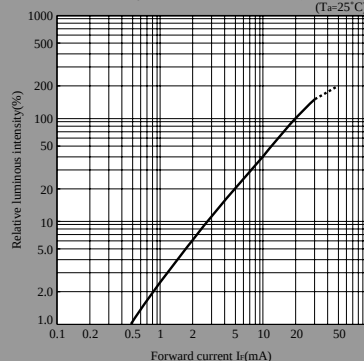
Luminous Intensity vs. Ambient Temperature(Note)



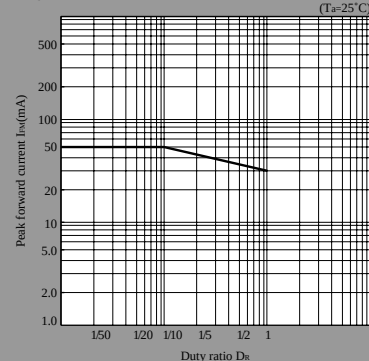
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

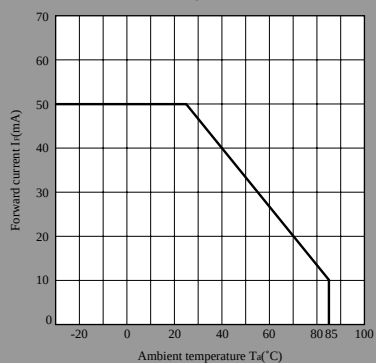


Duty Ratio vs. Peak Forward Current

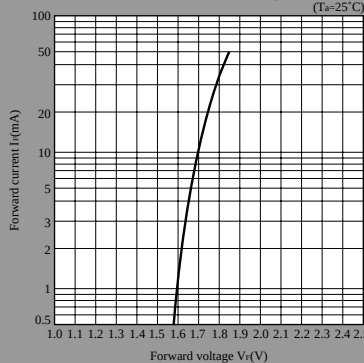


TR series

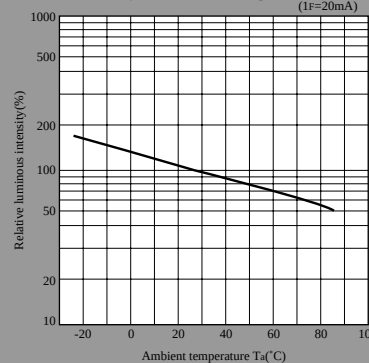
Forward Current Derating Curve



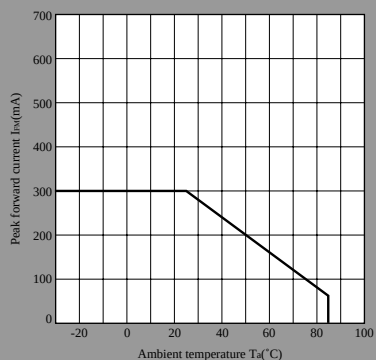
Forward Current vs. Forward Voltage(Note)



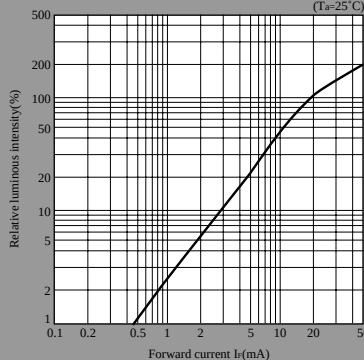
Luminous Intensity vs. Ambient Temperature(Note)



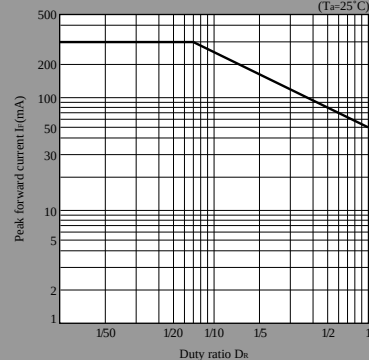
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



Note) Characteristics shown in diagrams are typical values. (not assurance value)

(Notice) • In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.