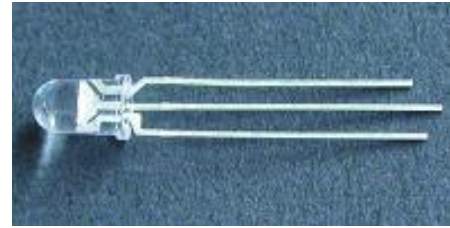


ARL-5019GYC

FEATURES

- Two chips are matched for uniform light output, wide viewing angle
- Long life-solid state reliability
- I.C.compatible/
- Low power consumption
- Pb free



DESCRIPTIONS

- The LED lamps contain two integral chips and is available as both bicolor and bipolar types
- The Bright Red and Green light is emitted by diodes of GaAsP/GaP and GaAsP/GaP respectively
- Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused

APPLICATIONS

- Status indicators.
- Commercial use.
- Advertising Signs
- Back lighting

USAGE NOTES

- Surge will damage the LED
- When using LED, it must use a protective resistor in series with DC current about 20mA

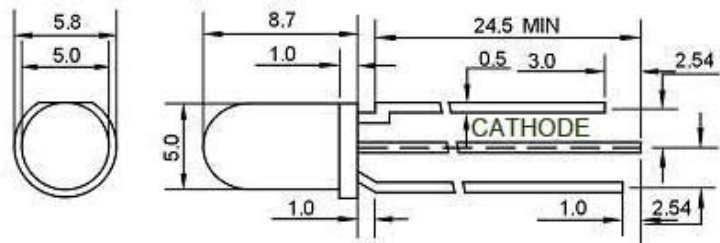
Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
ARL-5019GYC	GaAsP/GaP	Yellow	White Clear
	GaAsP/GaP	Green	

PACKAGE DIMENSIONS

NOTES

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.



Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	I_{FPM}	100	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	140	mW
Operating Temperature	T_{opr}	-40 ~+80	°C
Storage Temperature	T_{stg}	-40 ~+100	°C
Soldering Heat (5s)	T_{sol}	260	°C

Electro-Optical Characteristics (Ta=25 °C)

Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	Yellow	100	150	---	mcd	$I_F=20mA$
		Green	150	200	---		
Viewing Angle	$2\theta_{1/2}$	Yellow	---	30	---	Deg	(Note 1)
		Green	---	---	---		

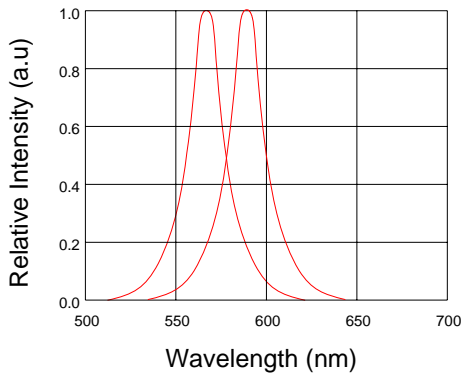
Peak Emission Wavelength	λ_p	Yellow	580	590	595	nm	IF=20mA
		Green	565	570	575		
Spectral Line Half-Width	$\Delta\lambda$	Yellow	15	20	25	nm	IF=20mA
		Green	15	20	25		
Forward Voltage	V_F	Yellow	1.9	---	2.3	V	IF=20mA
		Green	1.9	---	2.5		
Reverse Current	I_R	Yellow	---	---	10	μA	VR=5V
		Green	---	---	10		

Note:

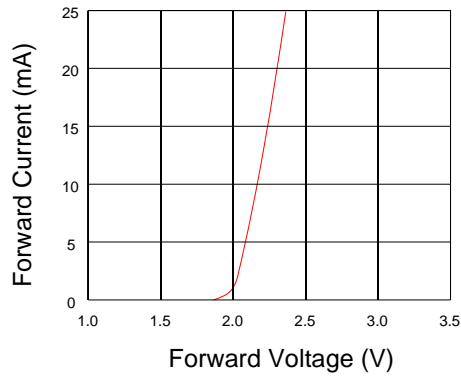
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

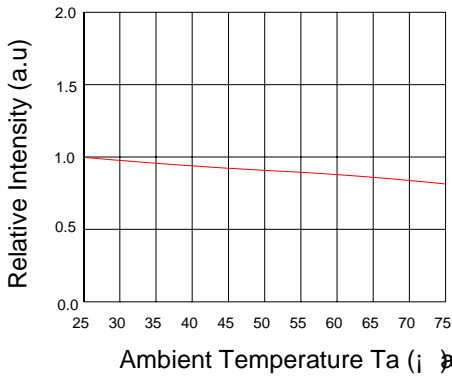
Relative Intensity VS. Wavelength



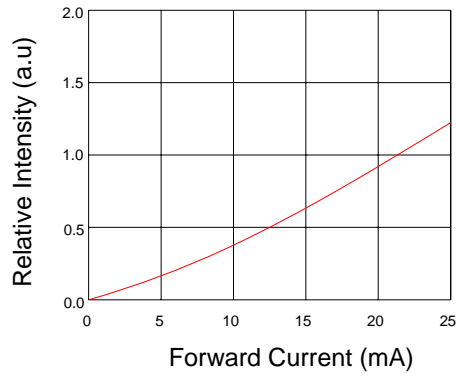
Forward Current VS. Forward Voltage



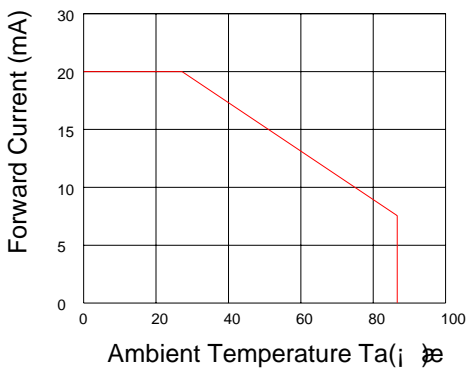
Relative Intensity VS. Ambient Temp



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

