

LED-10403URUGW/3

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 AlGaInP and InGaN respectively
- Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused

Applications

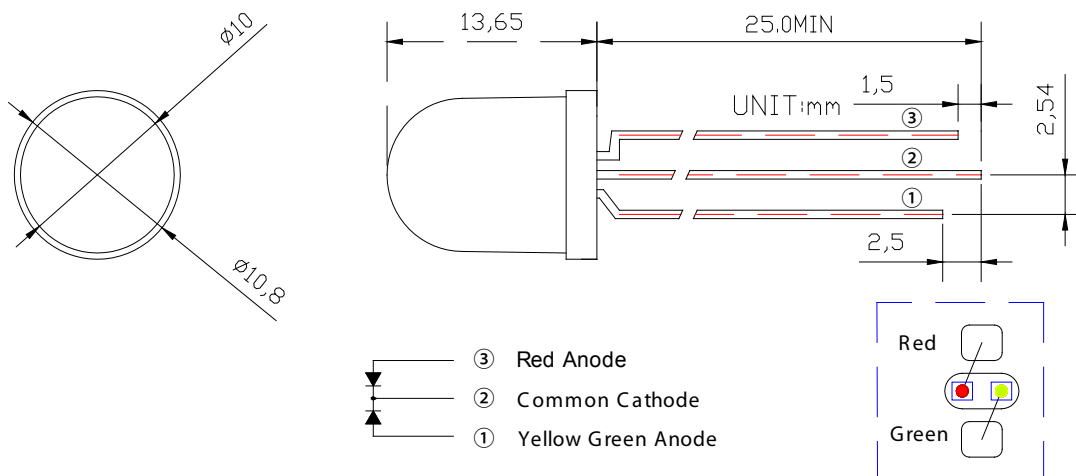
- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

Usage Notes

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

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
LED-10403URUGW/3	AlGaInP	Red	Diffused
	InGaN	Green	

PACKAGE DIMENSIONS



Notes:

- Other dimensions are in millimeters, tolerance is 0.25 mm except being specified.
- Protruded resin under flange is 1.5 mm 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	Topr	-40~+80	°C
Storage Temperature	Tstg	-40~+100	°C
Soldering Heat (5s)	Tsol	260	°C

Electro-Optical Characteristics (Ta=25°C)

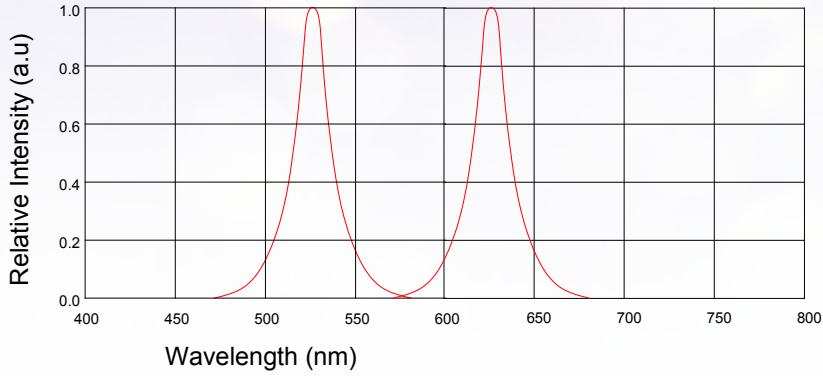
Parameter	Sym- bol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red	800	1000	1500	mcd	IF=20mA
		Green	100	1500	2000		
Viewing Angle	$2\theta_{1/2}$	Red	40	-	60	Deg	(Note 1)
		Green					
Peak Emission Wavelength	λ_p	Red	620	630	635	nm	IF=20mA
		Green	520	525	530		
Spectral Line Half-Width	$\Delta\lambda$	Red	15	20	25	nm	IF=20mA
		Green	30	35	40		
Forward Voltage	V_F	Red	1.9	-	2.3	V	IF=20mA
		Green	2.9		3.5		
Reverse Current	I_R	Red	-	-	10	μ A	VR=5V
		Green					

Notes

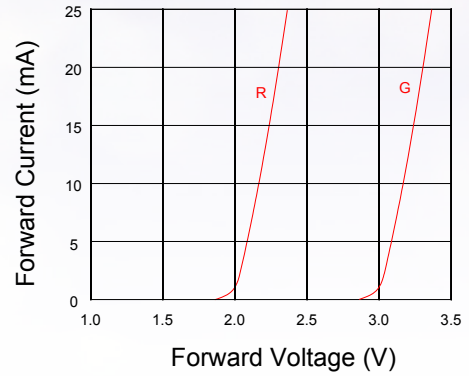
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Typical Electro-Optical Characteristics Curves

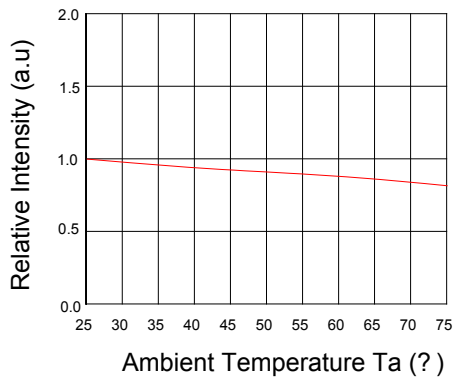
Relative Intensity VS. Wavelength



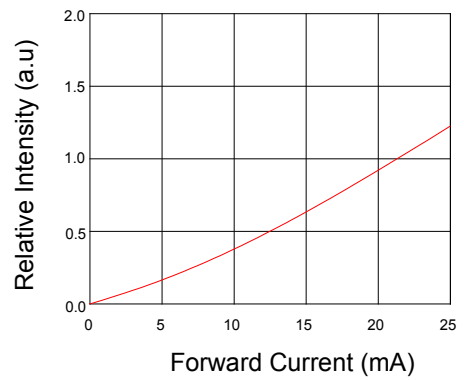
Forward Current VS. Forward Voltage



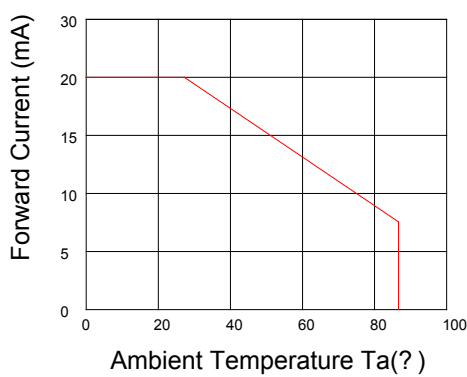
Relative Intensity VS. Ambient Temp



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

