

DWLED-660940PLCC4-V1.00

Dual Wavelength 660nm/940nm LED with SMD PLCC package

■ Features

- * Dual Optical Wavelength LED Package 660nm Red & 940nm Infrared
- * Reflector Coating Type of Surface Mount Device PLCC Package
- * High Power & High Uniformity
- * RoHS Compliant

■ Applications

- * Red & Infrared signal Indicators
- * SPO2 pulse Oximeter
- * Optical Switch or Data link
- * Dual Channel Free Space Optical Communications
- * Security Sensor
- * Light Source

■ Absolute Maximum Ratings

Parameter	Symbol	Rating(Red)	Rating(IR)	Unit
Reverse Voltage(10 μ A)	V _R	5	5	V
Operating Temperature	T _{opr}	-20 ~ +70	-20 ~ +70	°C
Storage Temperature	T _{stg}	-40 ~ +85	-40 ~ +85	°C
Lead Solder Temperature*	T _{sol}	260	260	°C
Maximum Peak Pulsing Current (1/8 duty f=1kHz)	I _{fp}	125	125	mA

*Solder Time < 3sec

■ Electrical and optical characteristics (Ta = 25°C)

Item	Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
1	Center Wavelength	λ_c	If=20mA	Red	-	660	-	nm
				IR	-	940	-	
2	Forward Voltage	V _{BD}	If=20mA	Red	1.7	2.0	2.5	V
				IR	-	1.2	1.7	
3	Output Power	P _O	If=20mA	Red	40	65	100	mcd
				IR	-	0.6	-	mW
4	Spectral Half Bandwidth	$\Delta\lambda$	If=20mA	Red	-	23	-	nm
				IR	-	50	-	
5	Beam Divergence	2 θ	If=10mA, half power	-	120	-	Deg	
6	Reverse Current	I _R	V _r =5V	-	-	10	μ A	

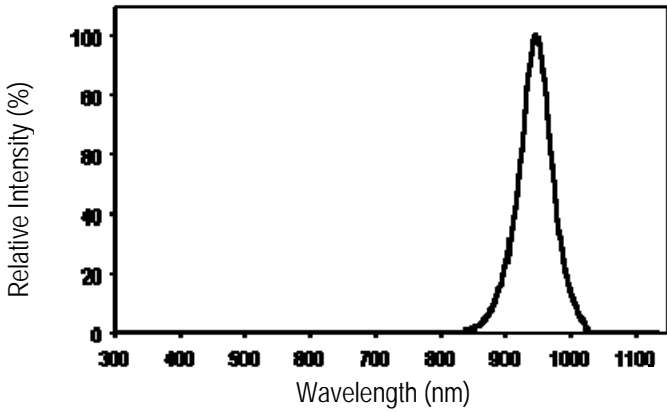
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■ Electro-Optical Characteristics Curves

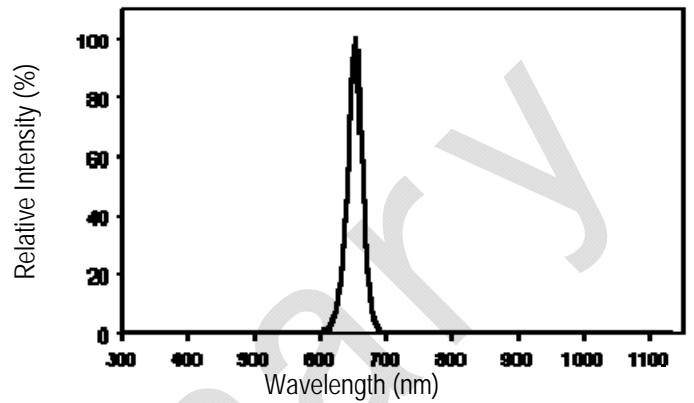
IR: 940nm

Relative Intensity vs. Wavelength

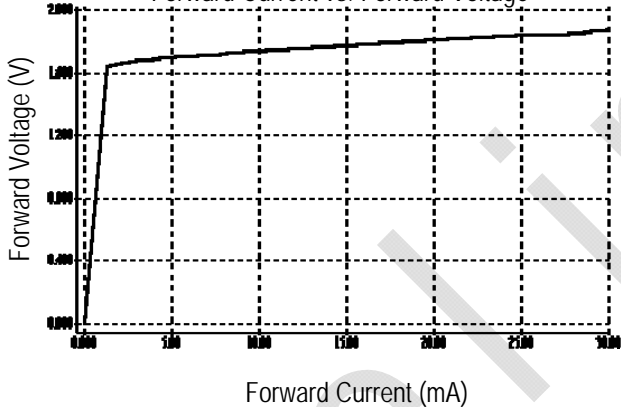


Red: 660nm

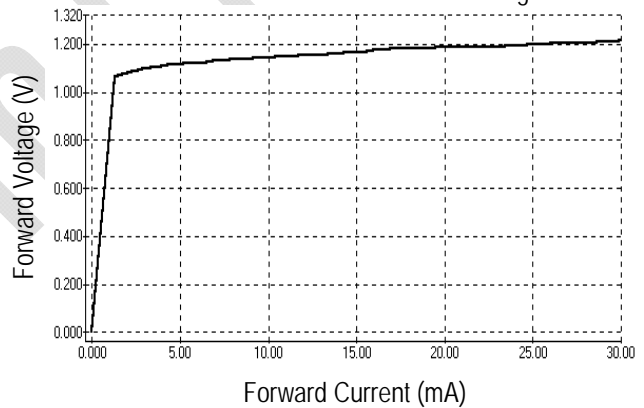
Relative Intensity vs. Wavelength



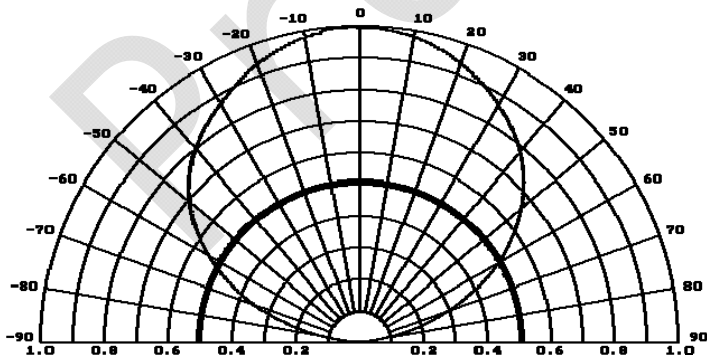
Forward Current vs. Forward Voltage



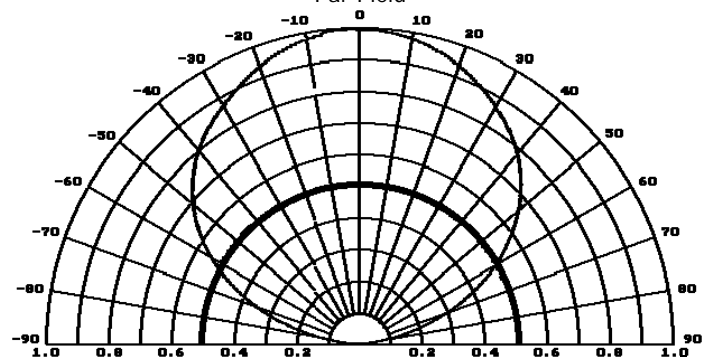
Forward Current vs. Forward Voltage



Far-Field



Far-Field

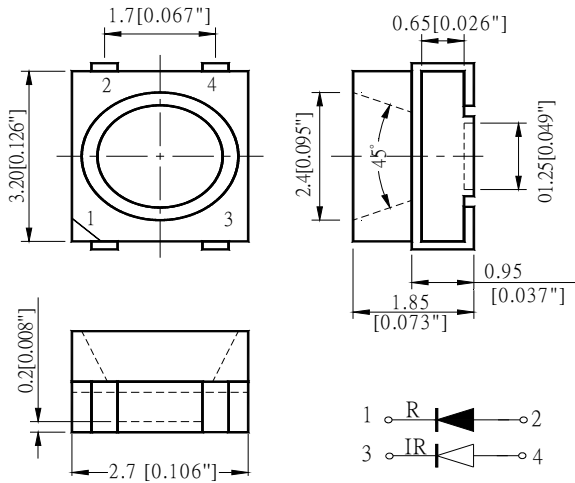


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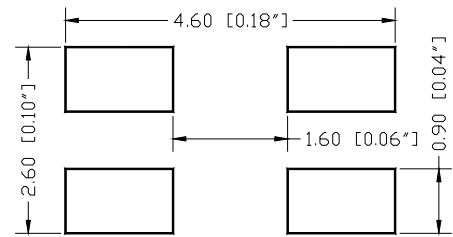
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■ Outline Dimension

Unit: mm(Inch)



RECOMMEND PAD LAYOUT



ITEM	MATERIALS	
Resin	Silicon	
Lens color	Water transparent	
Dice	IR	AlGaAs/AlGaAs
	Red	AlGaAs/AlGaAs



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.2\text{mm}$ (0.008inch) unless otherwise