

LITEON

SOT-23 Surface Mounting LED Lamps

LTL-907HK Red Orange-Green
LTL-907JK Red Orange-Red Orange
LTL-907NK AlGaAs-AlGaAs

Features

- Microminiature package LED Lamp.
- Surface mount assembly lamp.
- Double chip.
- High efficiency/lower power consumption.
- Long life solid state reliability.

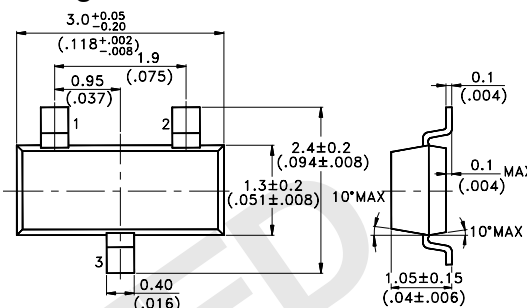
Description

LTL-907HK are bicolor LED contains two integral chip one orange Gallium Arsenide Phosphide on Gallium Phosphide and one green Gallium Phosphide, operation independently of each other with a common anode.

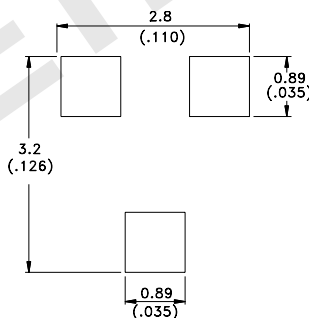
LTL-907JK is clear non-diffused epoxy micro-miniature package for surface mount assembly double orange Gallium Arsenide Phosphide Light Emitting Diode.

LTL-907NK is utilizing double Gallium Aluminum Arsenide Ultra-brightness red.

Package Dimensions



Soldering Pad Dimension



Devices

Part No. LTL-	Lens	Source Color
907HK	Water Clear	Red Orange Green
907JK	Water Clear	Red Orange Red Orange
907NK	Water Clear	AlGaAs Red AlGaAs Red

Part No.	LTL-907HK	LTL-907JK	LTL-907NK
1	Cathode (Orange)	Cathode	Anode
2	Cathode (Green)	Cathode	Anode
3	Anode	Anode	Cathode

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

Absolute Mmaximum Ratings at Ta=25°C

Parameter	AlGaAs Red	Orange	Green	Unit
Power Dissipation	100	100	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	120	120	mA
Continuous Forward Current	40	30	30	mA
Derating Linear From 50°C	0.8	0.4	0.4	mA/°C
Reverse Voltage	5	5	5	V
Operating Temperature Range	-55°C to +100°C			
Storage Temperature Range	-55°C to +100°C			
Wave Soldering Condition	260°C for 5 Seconds			
Infrared Soldering Condition	260°C for 5 Seconds			

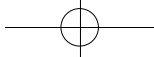
Electrical / Optical Characteristics and Curves at Ta = 25°C

Parameter	Symbol	Part No. LTL-	Color	Min.	Typ.	Max.	Unit.	Test Condition.
Luminous Intensity	Iv	907HK	Red Orange Green	1.7 1.3	5.6 2.8		mcd	If=20 mA/chip Note 1
		907JK	Red Orange Red Orange	1.7	5.6			
		907NK	AlGaAs Red AlGaAs Red	3.7	12.6			
Viewing Angle	$2\theta^{1/2}$	907HK	Red Orange Green		140		deg	Note 2 (FIG.6)
		907JK	Red Orange Red Orange		140			
		907NK	AlGaAs Red AlGaAs Red		140			
Peak Emission Wavelength	λP	907HK	Red Orange Green		630 560		nm	Measurement @Peak (FIG.1)
		907JK	Red Orange Red Orange		630			
		907NK	AlGaAs Red AlGaAs Red		660			
Dominant Wavelength	λd	907HK	Red Orange Green		621 569		nm	Note 3
		907JK	Red Orange Red Orange		621			
		907NK	AlGaAs Red AlGaAs Red		638			
Spectral Line Half Width	$\Delta\lambda$	907HK	Red Orange Green		40 30		nm	
		907JK	Red Orange Red Orange		40			
		907NK	AlGaAs Red AlGaAs Red		20			
Forward Voltage	VF	907HK	Red Orange Green		2.0 2.1	2.8	V	If=20mA
		907JK	Red Orange Red Orange		2.0	2.8		
		907NK	AlGaAs Red AlGaAs Red		1.8	2.4		
Reverse Current	IR	907HK	Red Orange Green			100	μA	VR=5V
		907JK	Red Orange Red Orange			100		VR=4V
		907NK	AlGaAs Red AlGaAs Red			100		
Capacitance	C	907HK	Red Orange Green		20 35		PF	VF=0 f=1MHZ
		907JK	Red Orange Red Orange		20			
		907NK	AlGaAs Red AlGaAs Red		30			

Notes:1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2. $2\theta^{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength, λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.



Typical Electrical / Optical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)

