



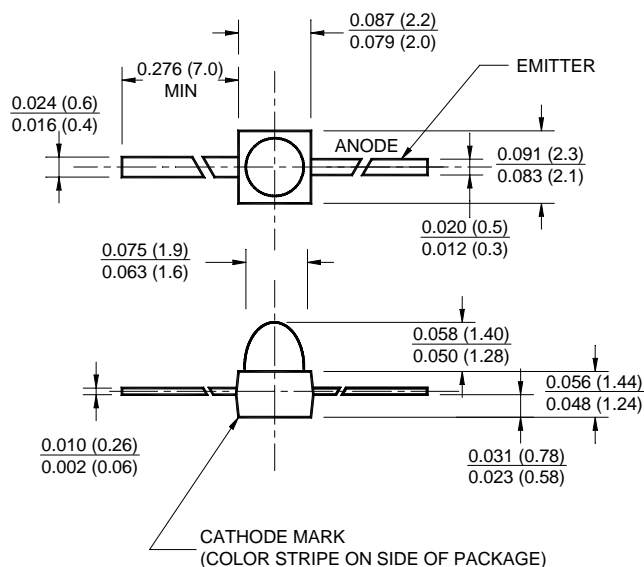
**THE DATASHEET OF
HLMPQ106AYR**



SOLID STATE LED LAMPS

SUBMINIATURE T-1 3/4 (1.9mm)

PACKAGE DIMENSIONS

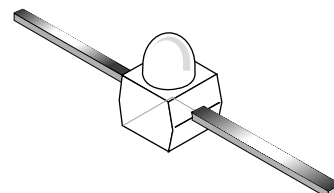


NOTE:
Dimensions are in inches (mm).

| | | |
|-----------------------|-------------------|--------------|
| AlGaAs RED | HLMP-Q106A | Clear |
| AllnGaP ORANGE | HLMA-QH00A | Clear |
| AllnGaP YELLOW | HLMA-QL00A | Clear |

FEATURES

- Subminiature package
- Low profile package
- Three lead bend options for surface mounting
- Available in tape and reel



DESCRIPTION

These subminiature LED lamps are intended for high volume, low cost status indication on PCBs, as well as for backlighting keyboards and switches. Choices of "Yoke", "Z-Bend" or "Gull-Wing" lead bends are available.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

| Parameter | AlGaAs Red HLMP-Q106A | AllnGaP Orange HLMA-QH00A | AllnGaP Yellow HLMA-QL00A | Units |
|--|--------------------------|------------------------------|------------------------------|-------|
| Continuous Forward Current - I _F | 50 | 50 | 50 | mA |
| Peak Forward Current - I _F (f = 1.0 KHz, Duty Factor = 1/10) | 200 | 100 | 100 | mA |
| Reverse Voltage - V _R (I _R = 10 μA) | 5 | 5 | 5 | V |
| Power Dissipation - P _D | 100 | 120 | 120 | mW |
| Operating Temperature - T _{OPR} | -40 to +100 | | | °C |
| Storage Temperature - T _{STG} | -40 to +100 | | | °C |
| Lead Soldering Time - T _{SOL} | | | | °C |
| Wave | 260 for 5 sec | | | |
| Reflow | 260 for 10 sec | | | |

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A = 25°C)

| Part Number | AlGaAs Red HLMP-Q106A | AllnGaP Orange HLMA-QH00A | AllnGaP Yellow HLMA-QL00A | Condition |
|-------------------------------|--------------------------|------------------------------|------------------------------|-----------------------|
| Luminous Intensity (mcd) | | | | I _F = 20mA |
| Minimum | 50 | 150 | 150 | |
| Typical | 500 | 500 | 500 | |
| Forward Voltage (V) | | | | I _F = 20mA |
| Maximum | 2.4 | 2.4 | 2.4 | |
| Typical | 1.9 | 1.9 | 1.9 | |
| Peak Wavelength (nm) | 660 | 620 | 590 | I _F = 20mA |
| Spectral Line Half Width (nm) | 20 | 18 | 15 | I _F = 20mA |
| Viewing Angle (°) | 25 | 25 | 25 | I _F = 20mA |

| | | |
|----------------|------------|-------|
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TYPICAL PERFORMANCE CURVES

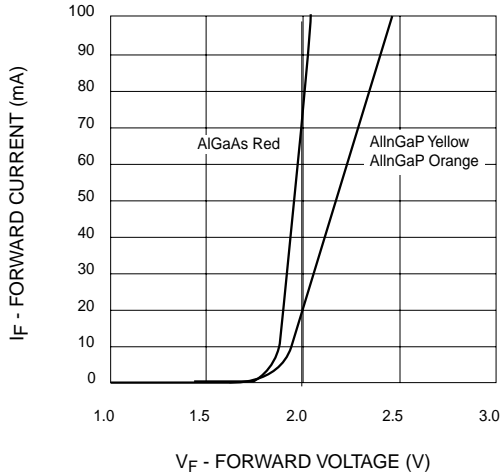


Fig. 1 Forward Current vs. Forward Voltage

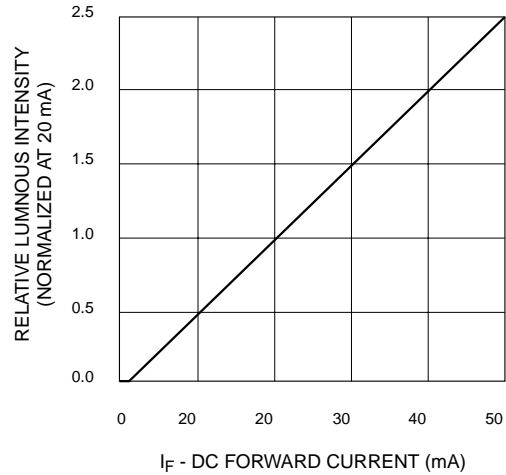


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

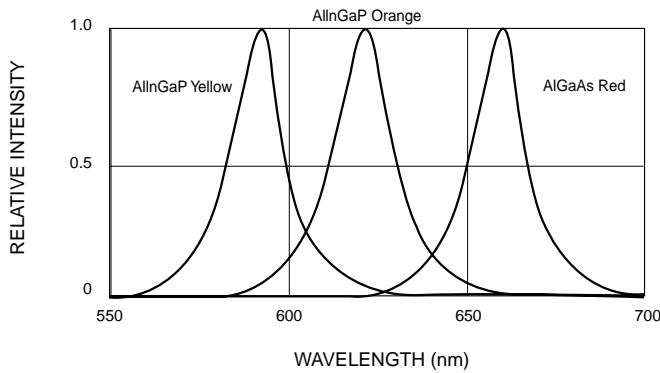


Fig. 3 Relative Intensity vs. Peak Wavelength

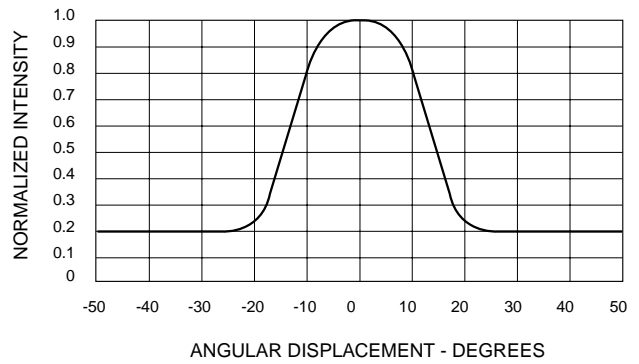
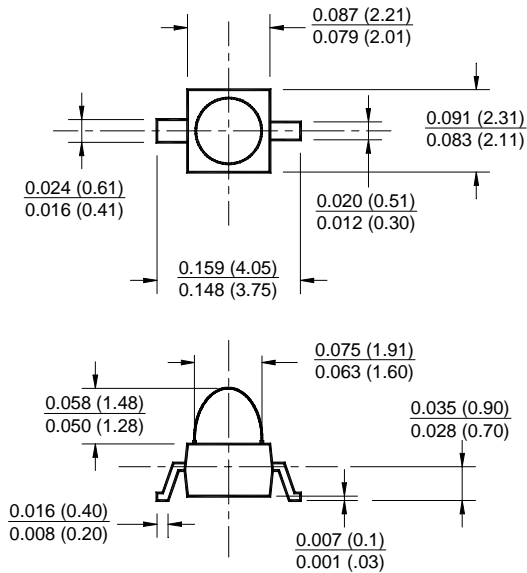


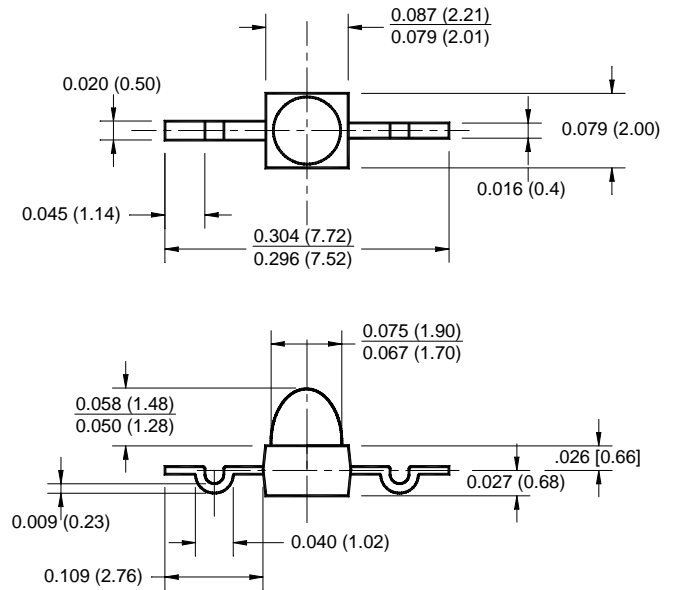
Fig. 4 Relative Luminous Intensity vs. Angular Displacement

| | | |
|----------------|------------|-------|
| AlGaAs RED | HLMP-Q106A | Clear |
| AlInGaP ORANGE | HLMA-QH00A | Clear |
| AlInGaP YELLOW | HLMA-QL00A | Clear |

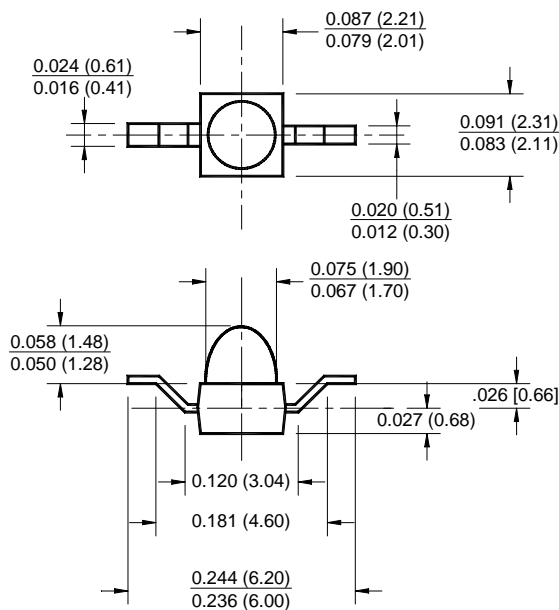
Gull-Wing Lead Option



Yoke Lead Option



Z-Bend Lead Option



NOTE

All dimensions are in inches (millimeters)

www.qtopto.com

Call QT Optoelectronics for more information or the phone number of your nearest distributor.

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