



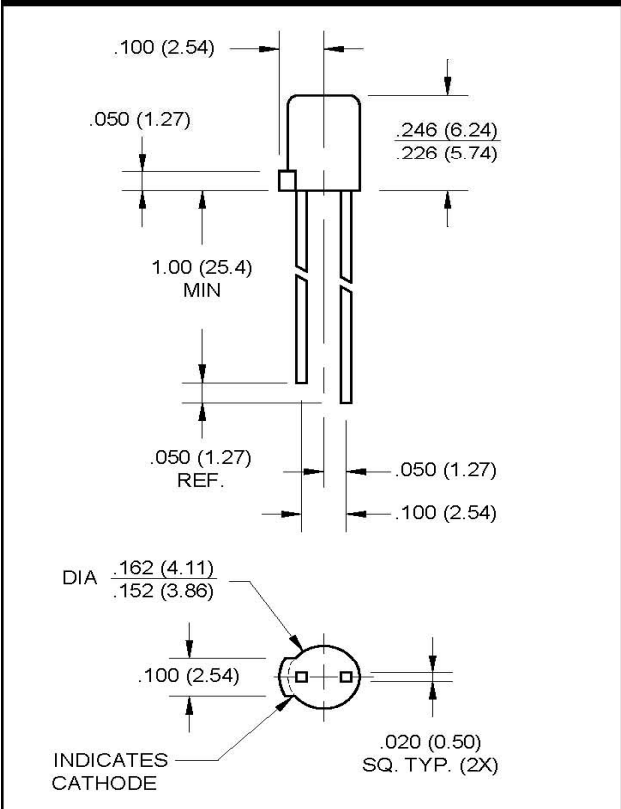
4 mm FLAT TOP LAMPS

HER
YELLOW
GREEN

HLMP-M200/M201
HLMP-M300/M301
HLMP-M500/M501

HLMP-M250/M251
HLMP-M350/M351
HLMP-M550/M551

PACKAGE DIMENSIONS



FEATURES

- Wide viewing angle
- Excellent for backlighting small areas
- Solid state reliability
- Choice of tinted clear or tinted diffused package



DESCRIPTION

Bright illumination and wide viewing angle are two outstanding features of the 4 mm flat top lamps. The cylindrical shape and flat emitting surface make these lamps particularly well suited for applications requiring high light output in minimal space.

NOTES: ALL DIMENSIONS ARE IN INCHES (mm).

ABSOLUTE MAXIMUM RATING (T_A = 25°C)

| Parameters | HER | YELLOW | GREEN | UNITS |
|---|-------------|-------------|-------------|-------|
| Power Dissipation | 135 | 120 | 135 | mW |
| Peak Forward Current (1 μS pulse width, 0.3% duty cycle) | 90 | 60 | 90 | mA |
| Reverse Voltage | 5 | 5 | 5 | V |
| Lead Soldering Time at 260° C | 5 | 5 | 5 | sec |
| Continuous Forward Current | 30 | 20 | 30 | mA |
| Operating Temperature | -55 to +100 | -55 to +100 | -55 to +100 | °C |
| Storage Temperature | -55 to +100 | -55 to +100 | -55 to +100 | °C |



4 mm FLAT TOP LAMPS

| ELECTRICAL / OPTICAL CHARACTERISTICS (T _A =25°C) | | | |
|--|-------------------|-----------------------|-----------------------------------|
| HER YELLOW | Parammeter | HLMP-M200/M201 | HLMP-M300/M301 |
| Minimum 3.4 / 5.4 | 3.6 / 5.7 | Typical 5.0 / 7.0 | 5.0 / 7.0 |
| Typical 2.2 | 2.2 | Peak Wavelength (nm) | 635 585 |
| 135 | | Reverse Voltage (V) | 5 5 |
| | | Viewing Angle (°) | 135 |
| | | GREEN | HLMP-M500/M501 |
| | | 4.2 / 6.7 | 7.0 / 10.0 |
| | | 3.0 | 2.3 565 5 135 |
| | | | Condition I _F = |
| | | | = 20mA I _F = |
| | | | 20mA I _R = |
| | | | 20mA I _R = |
| | | | 100μA I _F = |
| | | | 20mA |

| ELECTRICAL / OPTICAL CHARACTERISTICS (T _A =25°C) | | | |
|--|-------------------|-----------------------|-----------------------------------|
| HER YELLOW | Parammeter | HLMP-M250/M251 | HLMP-M350/M351 |
| Minimum 3.4 / 5.4 | 3.6 / 5.7 | Typical 5.0 / 7.0 | 5.0 / 7.0 |
| Typical 2.2 | 2.2 | Peak Wavelength (nm) | 635 585 |
| 80 | | Reverse Voltage (V) | 5 5 |
| | | Viewing Angle (°) | 80 |
| | | GREEN | HLMP-M550/M551 |
| | | 4.2 / 6.7 | 10.0 / 16.0 |
| | | 3.0 | 2.3 565 5 80 |
| | | | Condition I _F = |
| | | | = 10mA I _F = |
| | | | 20mA I _F = |
| | | | 10mA I _R = |
| | | | 10mA I _R = |
| | | | 100μA I _F = |
| | | | 10mA |



4 mm FLAT TOP LAMPS

TYPICAL PERFORMANCE CURVES ($T_A = 25^\circ\text{C}$)

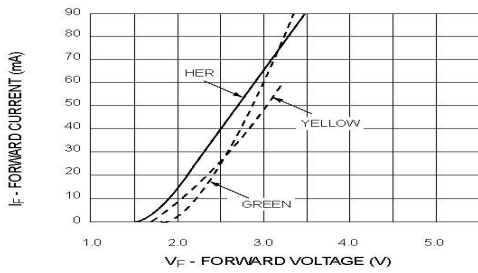


Fig. 1 Forward Current vs. Forward Voltage

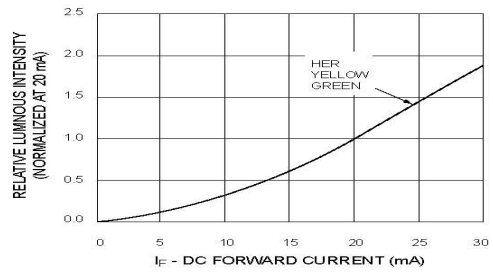


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

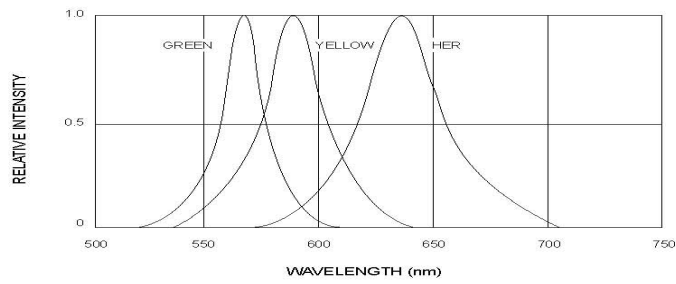


Fig. 3 Relative Intensity vs. Peak Wavelength

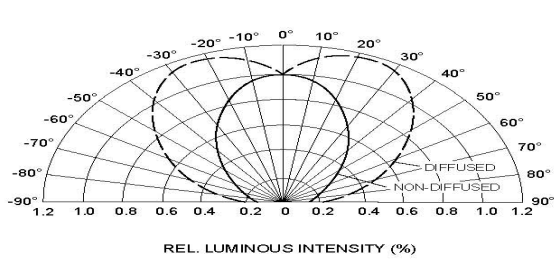


Fig. 4 Radiation Diagram

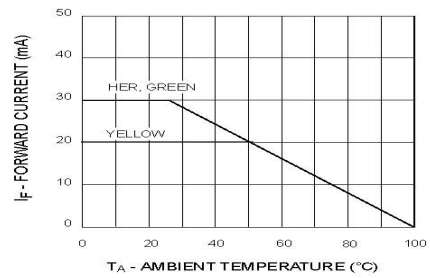


Fig. 5 Current Derating Curve



4 m m FLAT TOP LAMPS

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2. A critical component in any component of a life support device or system whose failure to perform can be implant into reasonably expected to cause the failure of the life and (c) device or system, or to affect its safety or effectiveness.