Kingbright

T-1 (3mm) CYLINDRICAL LED LAMP

P/N: L-424IDT HIGH EFFICIENCY RED

Features

- •CYLINDRICAL TYPE, TOP DIFFUSED. •LOW POWER CONSUMPTION. •I.C. COMPATIBLE. •RELIABLE AND RUGGED.
- •LONG LIFE SOLID STATE RELIABILITY.
- •AVAILABLE ON TAPE AND REEL.
- •RoHS COMPLIANT.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

Package Dimensions



Notes:

- 1. All dimensions are in millimeters (inches).
- Tolerance is ±0.25(0.01") unless otherwise noted.
 Lead spacing is measured where the leads emerge from the package.

4. Specifications are subject to change without notice.

SPEC NO: DSAB4714 **APPROVED: J. Lu**

REV NO: V.5 CHECKED: Allen Liu DATE: MAR/07/2006 **DRAWN: Y.W.WANG**

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Selection Guide

| Part No. | Dice | Dice Lens Type @ 10mA | | d) [2])mA | Viewing Angle [1] |
|----------|---------------------------------|-----------------------|------|---------------|----------------------|
| | | | Min. | Тур. | 2 θ 1/2 |
| L-424IDT | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 3 | 5 | 100° |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
 2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | High Efficiency Red | 627 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | High Efficiency Red | 625 | | nm | I⊧=20mA |
| Δλ1/2 | Spectral Line Half-width | High Efficiency Red | 45 | | nm | IF=20mA |
| С | Capacitance | High Efficiency Red | 15 | | pF | VF=0V;f=1MHz |
| Vf [2] | Forward Voltage | High Efficiency Red | 2.0 | 2.5 | V | IF=20mA |
| IR | Reverse Current | High Efficiency Red | | 10 | uA | VR = 5V |

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

| Parameter | High Efficiency Red | Units | | |
|-------------------------------|---------------------|-------|--|--|
| Power dissipation | 105 | mW | | |
| DC Forward Current | 30 | mA | | |
| Peak Forward Current [1] | 160 | mA | | |
| Reverse Voltage | 5 | V | | |
| Operating/Storage Temperature | -40°C To +85°C | | | |
| Lead Solder Temperature [2] | 260°C For 3 Seconds | | | |
| Lead Solder Temperature [3] | 260°C For 5 Seconds | | | |

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

2. 2mm below package base.

3. 5mm below package base.

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