

4mm CYLINDRICAL LED LAMP

WP1413ITL

HIGH EFFICIENCY RED

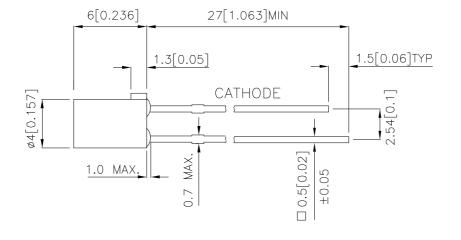
Features

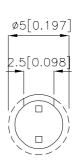
- CYLINDRICAL TYPE, FLAT TOP.
- CONVEX CATHODE MARK ON BODY.
- LOW POWER CONSUMPTION.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE SOLID STATE RELIABILITY.
- RoHS COMPLIANT.

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).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- 3. Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.

SPEC NO: DSAF2541 **REV NO: V.1** DATE: APR/16/2005 **PAGE: 1 OF 3** APPROVED: J. Lu CHECKED: Allen Liu DRAWN: B.H.LI ERP: 1101001457

Kingbright

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) @ 10mA		Viewing Angle
			Min.	Тур.	2 θ 1/2
WP1413ITL	HIGH EFFICIENCY RED (GaAsP/GaP)	RED TRANSPARENT	12	20	70°

Note:

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	Dominant Wavelength	High Efficiency Red	625		nm	IF=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	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF=20mA
IR	Reverse Current	High Efficiency Red		10	uA	VR = 5V

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]	Solder Temperature [2] 260°C For 3 Seconds			
Lead Solder Temperature [3]	Solder Temperature [3] 260°C For 5 Seconds			

Notes:

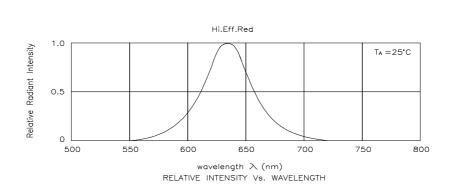
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

 SPEC NO: DSAF2541
 REV NO: V.1
 DATE:APR/16/2005
 PAGE: 2 OF 3

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: B.H.LI
 ERP: 1101001457

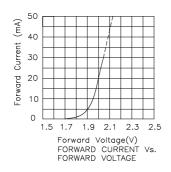
 $^{1. \}theta^{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

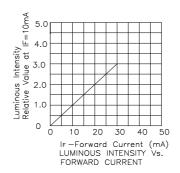
Kingbright

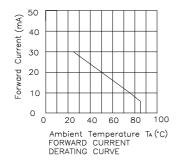


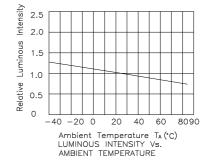
High Efficiency Red

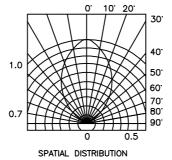
WP1413ITL











Remarks

If special sorting is required (e.g. binning based on forward voltage, luminous intensity or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

 SPEC NO: DSAF2541
 REV NO: V.1
 DATE:APR/16/2005
 PAGE: 3 OF 3

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: B.H.LI
 ERP: 1101001457