

#### **SOT-23 SURFACE MOUNT LED LAMP**

Part Number: AM23ID-F High Efficiency Red

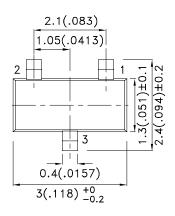
### **Features**

- SOT-23 PACKAGE SURFACE MOUNT LED LAMP.
- LOW POWER CONSUMPTION.
- LONG LIFE SOLID STATE RELIABILITY.
- PACKAGE: 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- RoHS COMPLIANT.

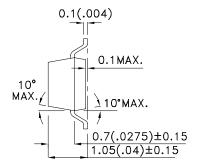
#### Description

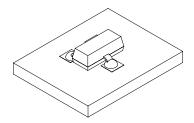
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

### **Package Dimensions**



- 1 ANODE
- 2 N.C.
- 3 CATHODE





#### Notes:

- All dimensions are in millimeters (inches).
   Tolerance is ±0.25(0.01") unless otherwise noted.
- 3. Lead spacing is measured where the lead emerge from the package.
- 4. Specifications are subject to change without notice.
- 5.The device has a single mounting surface. The device must be mounted according to the specifications.





SPEC NO: DSAD1245 APPROVED: WYNEC

**REV NO: V.8 CHECKED: Allen Liu**  **DATE: MAY/12/2007** DRAWN: Y.L.LI

PAGE: 1 OF 5 ERP: 1202000019

#### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] Lens Type @ 20mA		,	Viewing Angle [1]
		2.	Min.	Тур.	201/2	
AM23ID-F	High Efficiency Red (GaAsP/GaP)	RED DIFFUSED	4	15	140°	

- 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	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
С	Capacitance	High Efficiency Red	15		pF	V <sub>F</sub> =0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	2	2.5	V	I==20mA
lr	Reverse Current	High Efficiency Red		10	uA	V <sub>R</sub> =5V

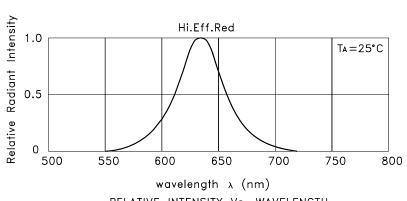
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

#### Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	160	mA	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

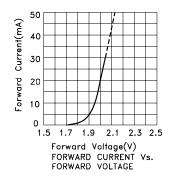
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

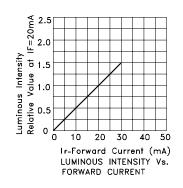
SPEC NO: DSAD1245 **REV NO: V.8 DATE: MAY/12/2007** PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.L.LI ERP: 1202000019

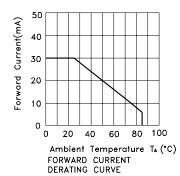


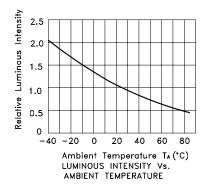
RELATIVE INTENSITY Vs. WAVELENGTH

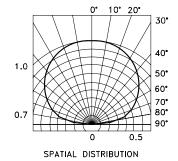
#### **High Efficiency Red** AM23ID-F







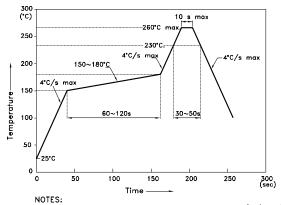




SPEC NO: DSAD1245 **REV NO: V.8** DATE: MAY/12/2007 PAGE: 3 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** ERP: 1202000019 DRAWN: Y.L.LI

#### AM23ID-F

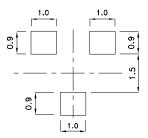
Reflow Soldering Profile For Lead-free SMT Process.



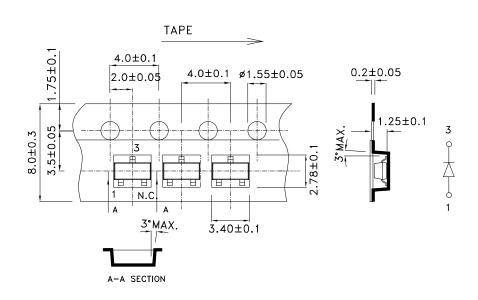
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C. 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
   3.Number of reflow process shall be 2 times or less.

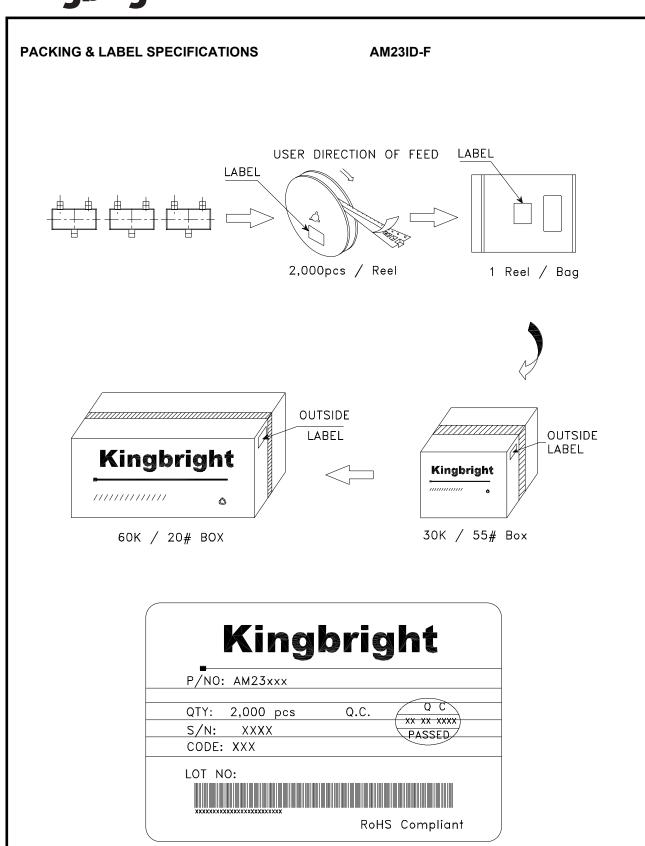
### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



### **Tape Specifications** (Units: mm)



SPEC NO: DSAD1245 **REV NO: V.8 DATE: MAY/12/2007** PAGE: 4 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.L.LI ERP: 1202000019



SPEC NO: DSAD1245 APPROVED: WYNEC REV NO: V.8 CHECKED: Allen Liu DATE: MAY/12/2007 DRAWN: Y.L.LI PAGE: 5 OF 5 ERP: 1202000019