

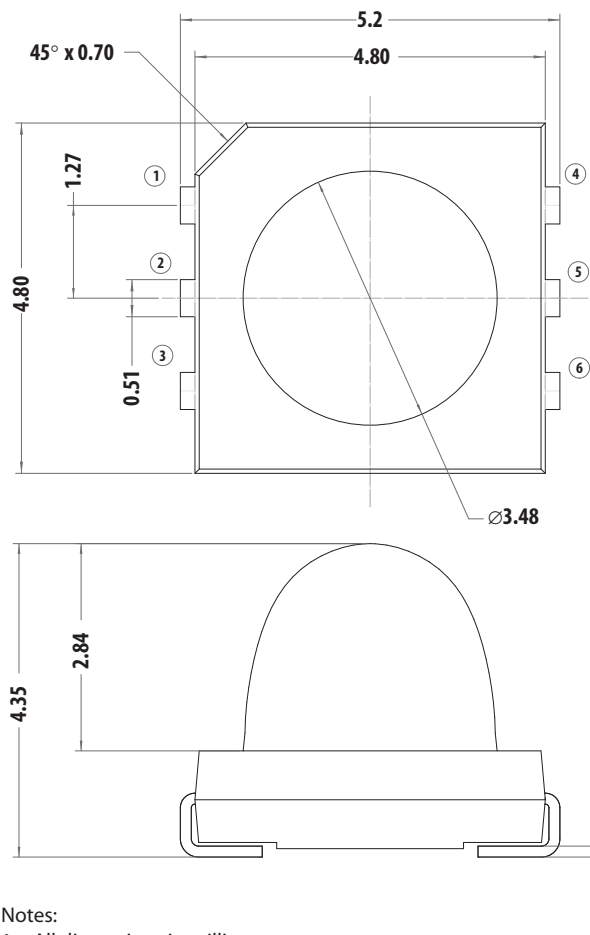
Data Sheet

Description

Avago Technologies ASMT-FJ60-AFJ00 is a SMT dome lamp that uses an untinted, non diffused lens to provide a high luminous intensity within a narrow radiation pattern.

The device is made by encapsulating an LED chip on an axial lead frame to form a molded epoxy lamp package with six bent leads for surfacing mounting.

Package Dimensions



Notes:

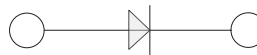
1. All dimensions in millimeters.
2. Tolerance is ± 0.1 mm unless otherwise specified.

Features

- Smooth, consistent narrow radiation pattern
- 10degree viewing angle
- 4.8L x4.8W x4.35H mm package dimension
- Available in 16mm tape on 15" (380mm) diameter reel
- Clear, non-diffused epoxy.
- RoHS compliant

Application

- Camera



Pin 1,2,4 - Anode
Pin 3,5,6 - Cathode

CAUTION: ASMT-FJ60-AFJ00 LED is Class 1A ESD sensitive per JESD22-A114C.01 standard. Please observe appropriate precautions during handling and processing.

Device Selection Guide

| Color | Parts Number | Typ. I_v (cd) | Test Current (mA) | Dice Technology |
|--------|-----------------|-----------------|-------------------|-----------------|
| Orange | ASMT-FJ60-AFJ00 | 29 | 20 | AllnGaP |

Notes:

1. The luminous intensity I_v is measured at the peak of the spatial radiation pattern which may not be aligned with the mechanical axis of the LED package.
2. I_v Tolerance = $\pm 15\%$.

Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

| Parameter | ASMT-FJ60-AFJ00 | Units |
|-----------------------------|-----------------|------------------|
| DC Forward Current | 70 | mA |
| Power Dissipation | 180 | mW |
| LED Junction Temperature | 110 | $^\circ\text{C}$ |
| Operating Temperature Range | -40 to 85 | $^\circ\text{C}$ |
| Storage Temperature Range | -40 to 85 | $^\circ\text{C}$ |

Optical Characteristics at $T_A = 25^\circ\text{C}$

| Part Number | Color | Peak Wavelength λ_{peak} (nm) | Dominant Wavelength λ_d [1] (nm) | Viewing Angle 2 $\theta_{1/2}$ [2] (Degrees) |
|-----------------|--------|---|---|---|
| | | Typ. | Typ. | Typ. |
| ASMT-FJ60-AFJ00 | Orange | 612 | 605 | 10 |

Notes:

1. The dominant wavelength, λ_d , is derived from the CIE Chromaticity Diagram and represents the perceived color of the device.
2. $\theta_{1/2}$ is the off-axis angle where the luminous intensity is $1/2$ the peak intensity.

Electrical Characteristics at $T_A = 25^\circ\text{C}$

| Color | Forward Voltage V_F (Volts) [1] | | | Reverse Breakdown, V_R (Volts) @ $I_R = 10\mu\text{A}$ | |
|--------|-----------------------------------|------|------|--|------|
| | Test Current | Min. | Typ. | Max. | Min. |
| Orange | 20mA | 1.8 | 2.1 | 2.6 | 5 |

Notes:

1. V_f tolerance : $\pm 0.1\text{V}$

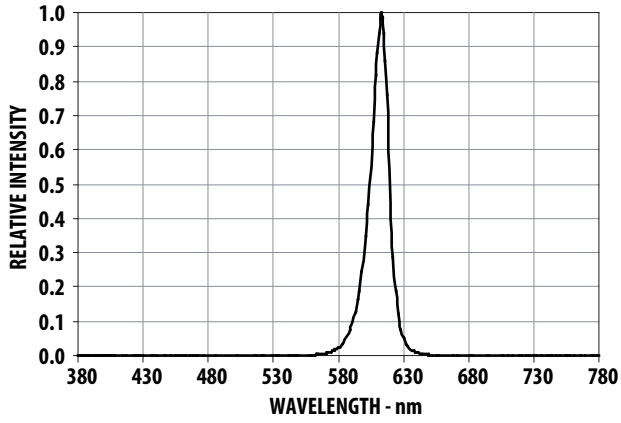


Figure 1. Relative Intensity vs. Wavelength

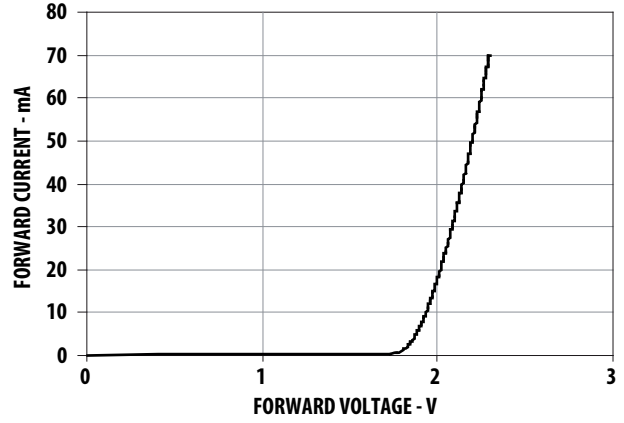


Figure 2. Forward Current vs Forward Voltage

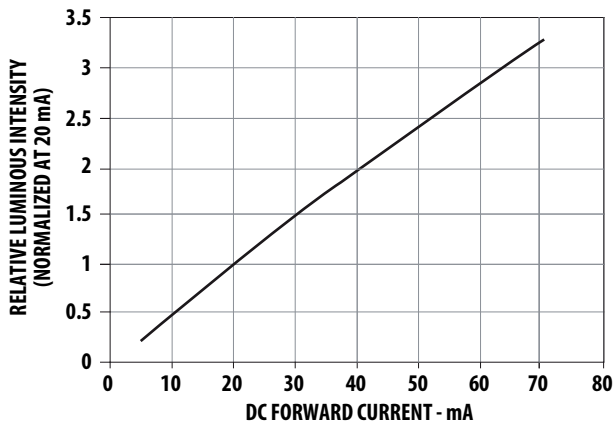


Figure 3. Relative Intensity vs. Forward Current

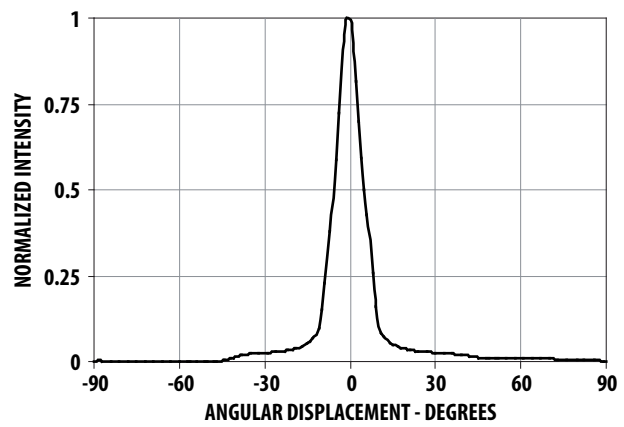


Figure 4. Radiation Pattern

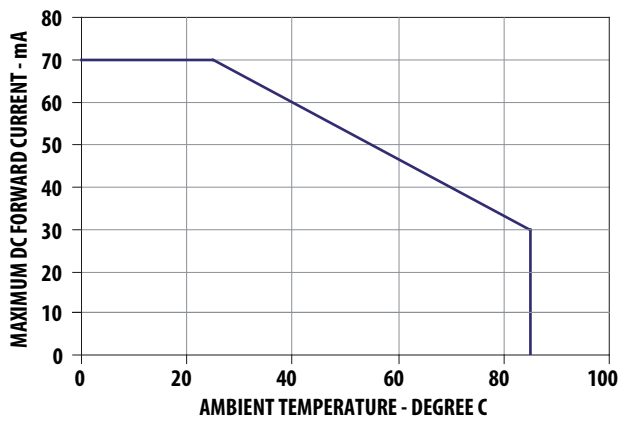


Figure 5. Maximum forward current vs ambient temperature.

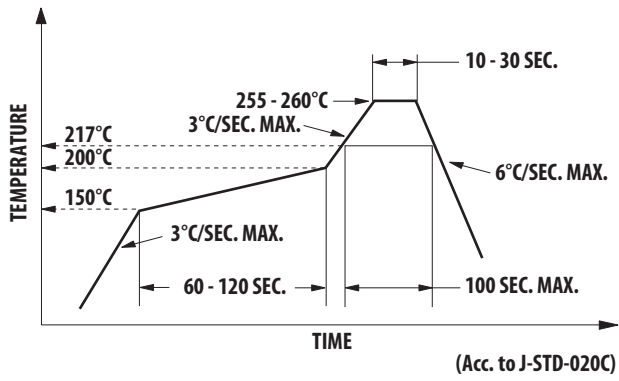


Figure 6. Recommended reflow soldering profile

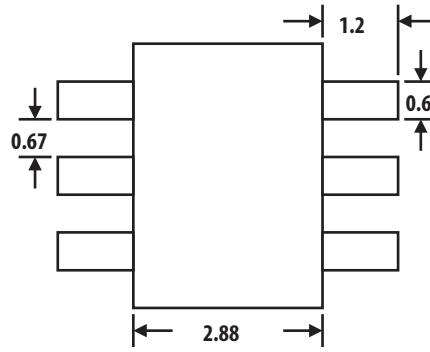


Figure 7. Recommended soldering land pattern

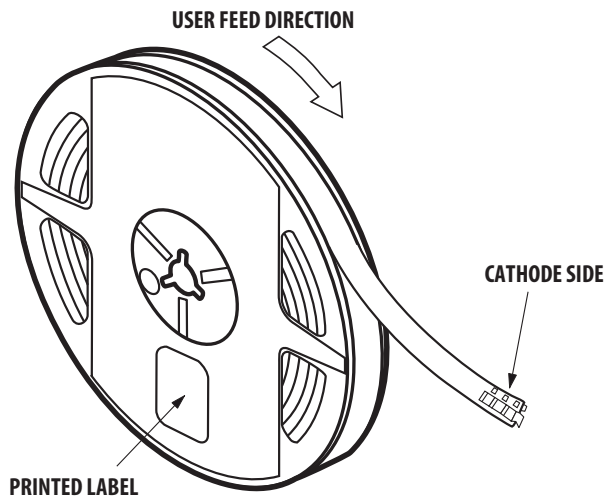


Figure 8. Reel Orientation

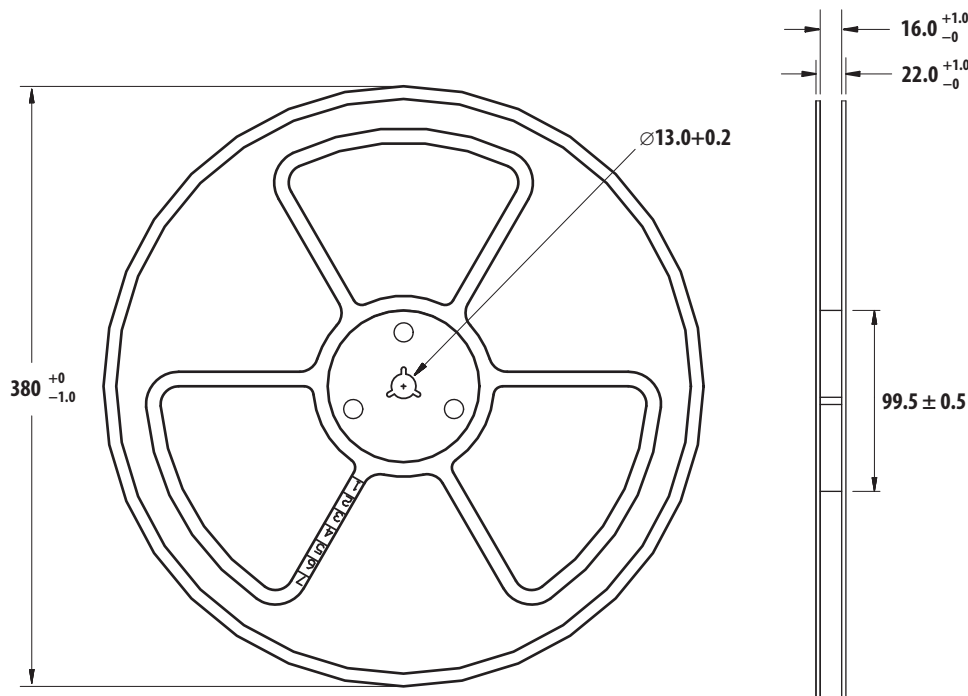


Figure 9. Reel Dimensions

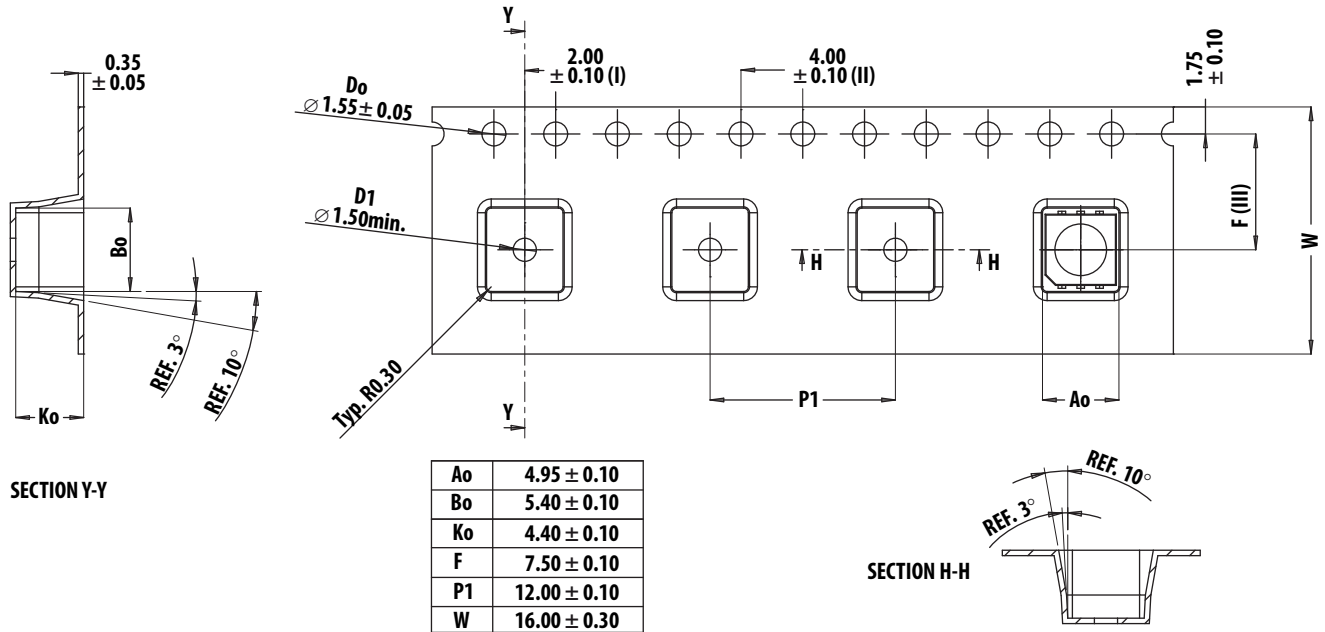


Figure 10. Tape Dimensions

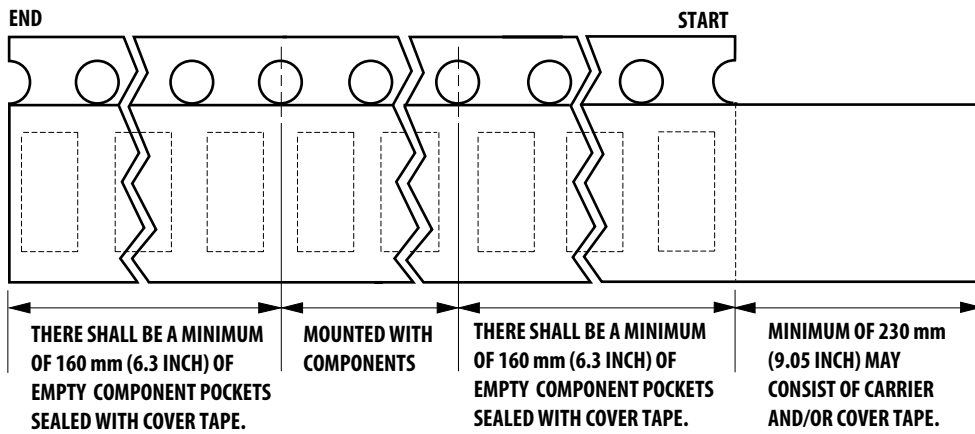


Figure 11. Tape Leader and Trailer Dimensions

Notes:

1. All dimensions in millimeters.
2. Tolerance is ± 0.1 mm unless otherwise specified

Iv Bin Category (cd)

| Bin ID | Min | Max |
|--------|------|------|
| F | 15.0 | 19.5 |
| G | 19.5 | 25.5 |
| H | 25.5 | 33.0 |
| I | 33.0 | 43.0 |
| J | 43.0 | 56.0 |

Iv Tolerance = $\pm 15\%$

Color Bin Category

Orange

| Orange | Min (nm) | Max (nm) |
|--------|----------|----------|
| A | 600 | 604 |
| B | 604 | 608 |
| C | 608 | 612 |

Tolerance = $\pm 1\text{nm}$

Handling Precaution

This products is classified as moisture sensitive level 3

When the bag is opened, parts required to mount within 168 hours of factory conditions $\leq 30^{\circ}\text{C}/60\%$, and stored at $<10\%$ RH.

Devices required bake, before mounting if:

- The humidity indicator card is $> 10\%$ when read at $23\pm 5^{\circ}\text{C}$
- The pack has been opened for more than 168 hours.

Baking recommended condition: $60 \pm 5^{\circ}\text{C}$ for 20 hours.

Note:

- Do not stack the units after reflow.

DISCLAIMER: Avago's products and software are not specifically designed, manufactured or authorized for sale as parts, components or assemblies for the planning, construction, maintenance or direct operation of a nuclear facility or for use in medical devices or applications. Customer is solely responsible, and waives all rights to make claims against avago or its suppliers, for all loss, damage, expense or liability in connection with such use.

For product information and a complete list of distributors, please go to our web site: www.avagotech.com

Avago, Avago Technologies, and the A logo are trademarks of Avago Technologies in the United States and other countries. Data subject to change. Copyright © 2005-2010 Avago Technologies. All rights reserved. AV02-2348EN - December 8, 2010

AVAGO
TECHNOLOGIES

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard LEDs - SMD category](#):

Click to view products by [Broadcom manufacturer](#):

Other Similar products are found below :

[LTST-C19GD2WT](#) [LTST-N683GBEW](#) [LTW-170ZDC](#) [LTW-M140SZS40](#) [598-8110-100F](#) [598-8170-100F](#) [598-8610-202F](#) [67-22VRVGC/TR8](#) [AAAF5060QBFSEEZGS](#) [HLMP-6305-L0011](#) [ALMD-LB36-SV002](#) [APT1608QGW](#) [15-21UYC/S530-A3/TR8](#) [EASV1803BA0](#) [LG M67K-H1J2-24-0-2-R18-Z](#) [LS A676-P2S1-1](#) [SML-512VWT86A](#) [SML-LX0606SISUGC/A](#) [SML-LXL1307SRC-TR](#) [SML-LXR851SIUPGUBC](#) [LT1ED53A](#) [FAT801-S](#) [AM27ZGC03](#) [APB3025SGNC](#) [APFA3010SURKCGKQBDC](#) [APHK1608VGCA](#) [APT2012QGW](#) [CLX6D-FKB-CN1R1H1BB7D3D3](#) [LTST-C250KGKT](#) [LTW-020ZDCG](#) [LTW-21TS5](#) [LTW-220DS5](#) [JANTXM19500/521-02](#) [UYGT801-S](#) [42-21UYC/S530-A3/TR8](#) [LO T67F-V1AB-24-1](#) [YGFR411-H](#) [SML-LX0402IC-TR](#) [CMDA20AYAA7D1S](#) [CMDA16AYDR7A1X](#) [339-1SURYGW/S530-A2](#) [598-8040-100F](#) [598-8070-100F](#) [598-8140-100F](#) [598-8610-200F](#) [EAPL3527GA5](#) [67-11/BHC-M1N2B8Y/2A0](#) [SML-LXL1209SYC/ATR](#) [EASV3020YGA0](#) [EAST16086YA5](#)