

# The Avago Advantage



Applications Solutions

## Avago Technologies Solutions for **Solid State Lighting**



Your Imagination, Our Innovation  
*Sense • Illuminate • Connect*

## Avago Technologies Solutions for **Solid State Lighting**

Avago Technologies offers a wide range of LEDs for solid state lighting. Our High Power, Mini High Power and Moonstone™ products are available from 1/2W to 3W input power in a variety of colors.



### **High Power LED Emitter**

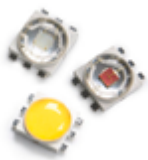
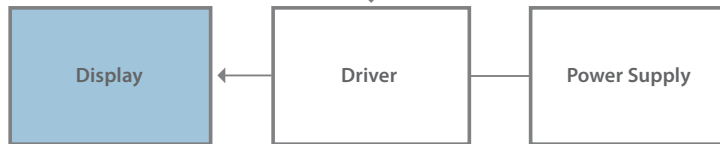
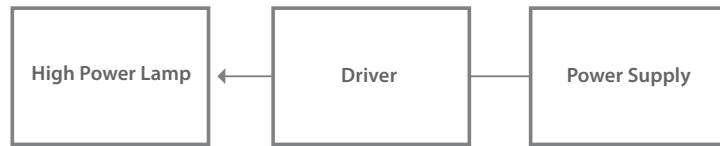
This high power LED features a footprint which is compatible to the Luxeon package. It is available in 1W and 3W and comes in a wide range of white colors including monochromes. The cool white part exhibits a high flux output of 100lm typical.

#### **Features**

- Exposed pad for excellent heat transfer  $\geq 10^{\circ}\text{C/W}$  thermal resistance
- Electrically isolated heat sink
- Wide viewing angle
- Non-ESD sensitive ( $>16\text{KV}$ )
- Compatible to standard SMT reflow process
- Silicone encapsulation for long life operation

#### **Products**

- 1W high power LED (cool white)
- 1W high power LED (neutral white)
- 1W high power LED (warm white)
- 1W high power LED (blue)
- 1W high power LED (royal blue)
- 1W high power LED (green)
- 1W high power LED (amber)
- 1W high power LED (red orange)
- 1W high power LED (red)
- 3W high power LED (cool white)
- 3W high power LED (neutral white)
- 3W high power LED (warm white)
- 3W high power LED (blue)
- 3W high power LED (royal blue)
- 3W high power LED (amber)
- 3W high power LED (red orange)
- 3W high power LED (red)



### **Mini High Power LED Emitter**

The Mini power LED features a high flux output in a small package footprint. It is available in 1W and 3W and comes in a wide range of white colors including monocolors. The cool white part supports 100lm minimum.

#### **Features**

- Exposed pad for excellent heat transfer  $\geq 9^{\circ}\text{C/W}$  thermal resistance
- Electrically isolated heat sink
- Wide viewing angle
- Non-ESD sensitive ( $>16\text{KV}$ )
- Compatible to standard SMT reflow process
- Silicone encapsulation for long life operation
- MSL 1
- High  $T_j$   $150^{\circ}\text{C}$  (1W option)

#### **Products**

- 1W mini high power LED (cool white)
- 1W mini high power LED (neutral white)
- 1W mini high power LED (warm white)
- 1W mini high power LED (blue)
- 1W mini high power LED (royal blue)
- 1W mini high power LED (green)
- 1W mini high power LED (amber)
- 1W mini high power LED (red orange)
- 1W mini high power LED (red)
- 3W mini high power LED (cool white)
- 3W mini high power LED (neutral white)
- 3W mini high power LED (warm white)
- 3W mini high power LED (blue)
- 3W mini high power LED (royal blue)
- 3W mini high power LED (amber)
- 3W mini high power LED (red orange)
- 3W mini high power LED (red)

### **Moonstone™ High Power LED**

Moonstone™ High Power LEDs are high-performance, energy-efficient devices that can handle high-thermal and high-driving current. They are available in 1/2W to 3W power, a variety of packages, colors to meet most design requirements and lumens range of 15 to 161.

#### **Features**

- Exposed pad for excellent heat transfer  $\geq 10^{\circ}\text{C/W}$  thermal resistance
- Electrically isolated heat sink option available
- Wide viewing angle
- Non-ESD sensitive ( $>16\text{KV}$ )
- Compatible to standard SMT reflow process
- Silicone encapsulation for long life operation
- Available in diffused silicone option

#### **Products**

- ½ W high power LED (cool white)
- ½ W high power LED (warm white)
- 1W high power LED (blue)
- 1W high power LED (green)
- 1W high power LED (amber)
- 1W high power LED (red)
- 1W high power LED (cool white)
- 1W high power LED (cool white)
- 1W high power LED (cool white)
- 3W high power LED (cool white)
- 1W high power LED (warm white)
- 1W high power LED (warm white)
- 1W high power LED (warm white)
- 3W high power LED (warm white)
- 3W RGB high power LED (tricolor)

# Your Imagination. Our Innovation



Avago Technologies is a leading designer, developer and global supplier of a broad range of analog, mixed signal and optoelectronics components and subsystems with a focus in III-V compound semiconductor design and processing. Backed by an extensive portfolio of intellectual property, Avago products serve three primary target markets: wireless communications, wired infrastructure, and industrial and other. Avago has a global employee presence and heritage of technical innovation dating back 50 years to its Hewlett-Packard roots.

## Avago products serve three diverse end markets

**Wireless Communications** serving the smartphone/handset and Base Station infrastructure markets with leading-edge products that include:

- Power Amplifiers
- Front End Modules
- Film Bulk Acoustic Resonator (FBAR) Filters
- GPS/GLONASS LNAs
- Optical Finger Navigation
- LED Backlighting, Screen Illumination
- Ambient Light and Proximity Sensors

**Wired Infrastructure** for switches/routers, data centers, supercomputers and storage/servers with products that include:

- 168Gb Parallel Optic Arrays
- 28Gb SerDes ASICs in 28nm
- Storage Fibre Channel Transceivers
- QSFP+/SFP+ Ethernet Transceivers

**Industrial and Other** for alternative energy power generation, electronic sign and signals, automated manufacturing, automotive lighting, GPS/GLONASS navigation, motor inverter system, battery charging and management, infotainment systems and vehicle safety systems with products that include:

- Inverters
- Isolation and Digital Optocouplers
- Motion Control Optical & Magnetic Encoders
- Polymer Optical Fiber
- Indicator and Display LEDs



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AV00-0215EN 9/23/13