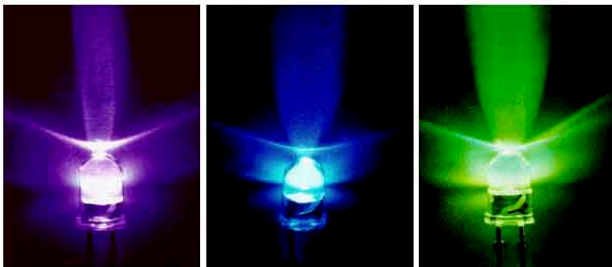


TECHNICAL BRIEF

BY: AZD ENGINEERING

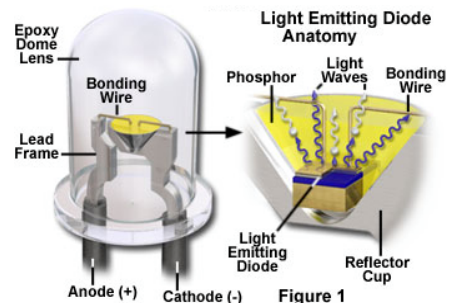
LEDs (Light Emitting Diodes)

In addition to its LCD product line, AZ Displays carries an assortment of LED products: LED chips, LED lamps, and LED displays. AZ Displays offers some of the widest selection of numerical LED displays in the industry.



LED Function

A typical Light Emitting Diode contains a semiconductor material which current passes through and is all enclosed in a protective plastic housing. With many variations of color and brightness in LEDs for today's market, the semiconductor contains many different chemical properties, however its base material is composed of **aluminum-gallium-arsenide (AlGaAs)**. As current is applied inside this semiconductor through the anode and cathode pins, the electrons start to recombine with the holes (positively charged particles) inside the depletion region of the semiconductor. During this recombination process, a release of photons will occur thus starting the emission of light.



New Releases

AZ Displays introduces new ultra bright performance LEDs that operate up to 350mA. Available in a unique proprietary SMT package, these new types of LEDs can withstand storage temperatures of up to +/- 100 degrees Celsius. These LEDs are close in brightness to very popular Lumileds. However, differently from Lumileds, they use Red/Green/Blue technology to create white light output with consistent color temperature for extended periods of time (unlike phosphorous-based white LEDs, which typically fade with continued exposure to sunlight).

