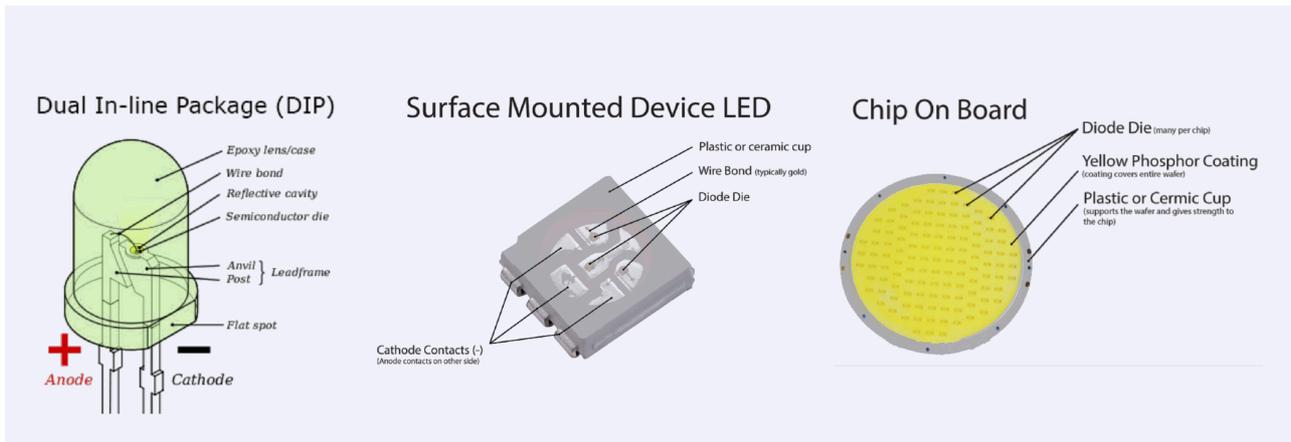


# What is the difference between DIP, SMD and COB



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Shenzhen Sanco Optoelectronics Technology CO., Ltd

Shenzhen Factory: 2 Floor, Buliding A, Tongduyu Industry Park, Fuhai Street, Fuyong, Shenzhen, China

Any Inquiry Contact us 24/7. Mail will be responded within 24 Hours

Mail :

English Customer Service: [info@lekled.com](mailto:info@lekled.com) Spanish Customer Service: [jesus@lekled.com](mailto:jesus@lekled.com)

Tel: +8613926878165 (Whatsapp, Viber, Wechat)

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## 1, What is DIP technology?

The LED technology of the dual inline package has existed for more than 50 years.

Although it is old, DIP LEDs are far from obsolete, since they are still used a lot of today for large signs and screens.

The widespread use of LED DIP occurred due to its long service life and intense shine.

DIP LEDs are highly recognizable by their design in the form of "pill" or "bullet" ( $\leq 5$  mm wide), and long contacts that are extended from the bottom of the LED and can be soldered or easily inserted into a bread board. The plastic and epoxy housing of the LED actually serves as a lens that can focus the light that comes from the diode.

The shape of the outer shell also includes a flat edge on one side that always indicates the cathode side of the DIP LEDs.

### DIP Technology

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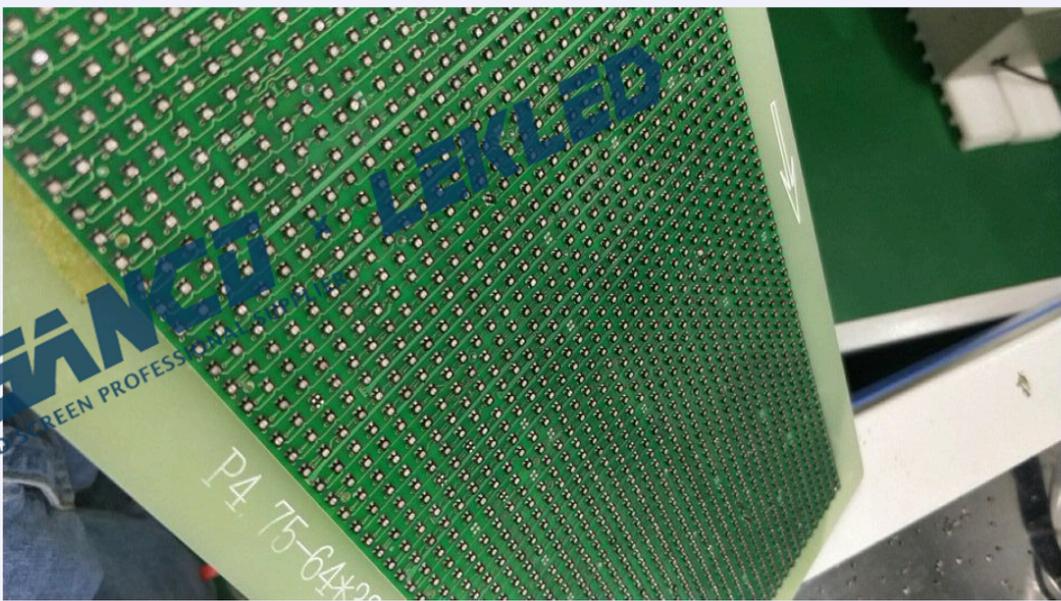
## 2 , What is SMD technology?

These chips are much smaller compared to the DIP technology, which tends to give them greater versatility DIP diodes.

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SMD technology also supports chips with more designs complicated, that have RGB capabilities on a single chip. It's also worth noting that SMD chips can have more than two contacts (one anode and one cathode). SMD chips can have 2, 4 or 6 contacts, depending on the number of diodes on the chip. SMD chips have been a very important development for the industry of the LED due to the ability to place 3 diodes on the same chip.

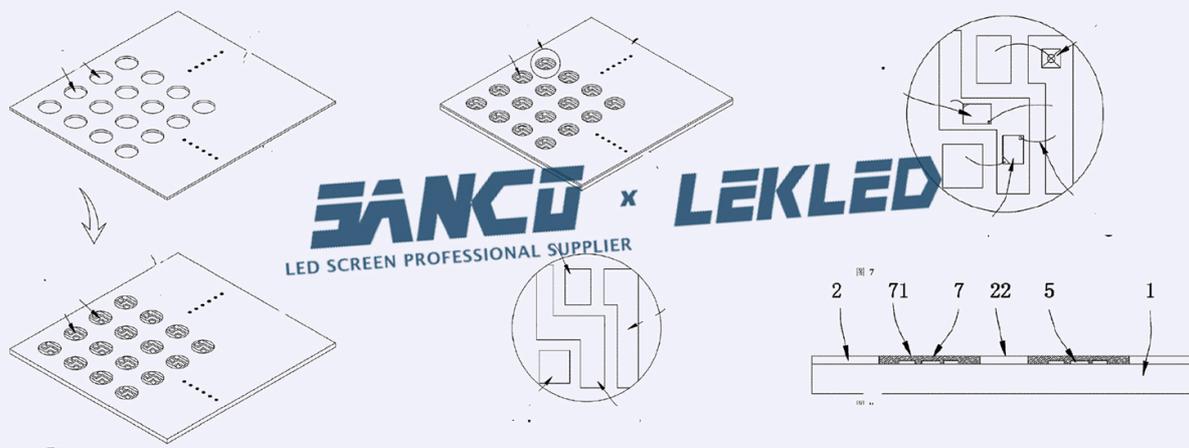
## SMD Technology



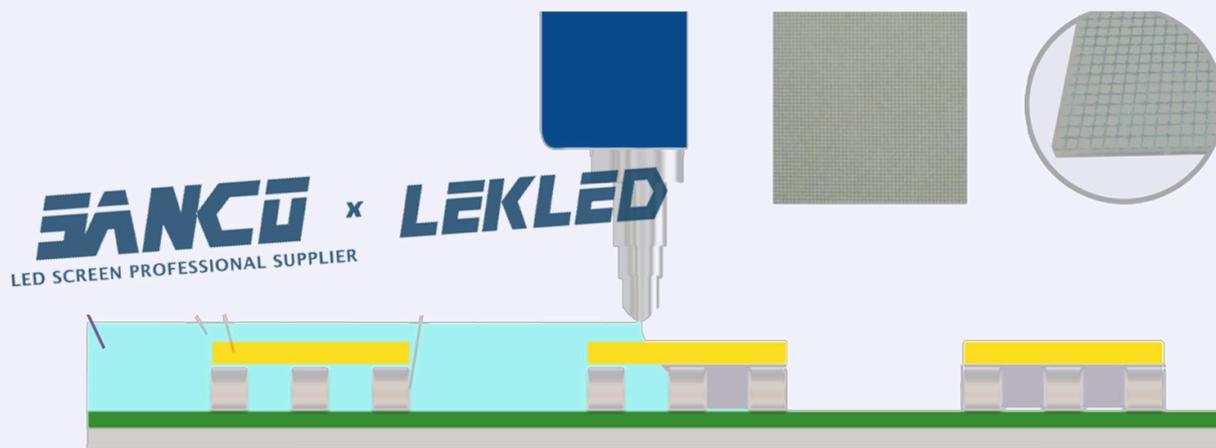
### 3, What is COB technology?

The latest LED development has been the "Chip On" technology Board "or COB. The big difference between COB technology and SMD technology lies in that, although SMD requires a circuit for each diode included in the chip, the COB devices only have 1 circuit and 2 contacts for everything the chip, regardless of the number of diodes. Since the creation of the COB chips, a variant has appeared called MCOB or "Multiple Chip On Board". The devices MCOB are very similar to COB chips in their application and are more or less just multiple COB chips together in series.

## COB Technology



## COB Technology



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