Application Note No. AN054

OSRAM
Opto Semiconductors

Long-term availability management at OSRAM Opto Semiconductors

Application Note

Valid for:
LEDs for automotive applications

Abstract

Innovation cycles are becoming shorter, LEDs are being improved year on year and newly developed products are available. At the same time, there is a desire for durable products and the correspondingly robust security of supply that will last for years, especially if sub-assemblies with LEDs are replaced. The obsolescence management (OM) at OSRAM Opto Semiconductors helps customers to develop a long-term supply strategy.

This application note describes the long-term availability management at OSRAM Opto Semiconductors.

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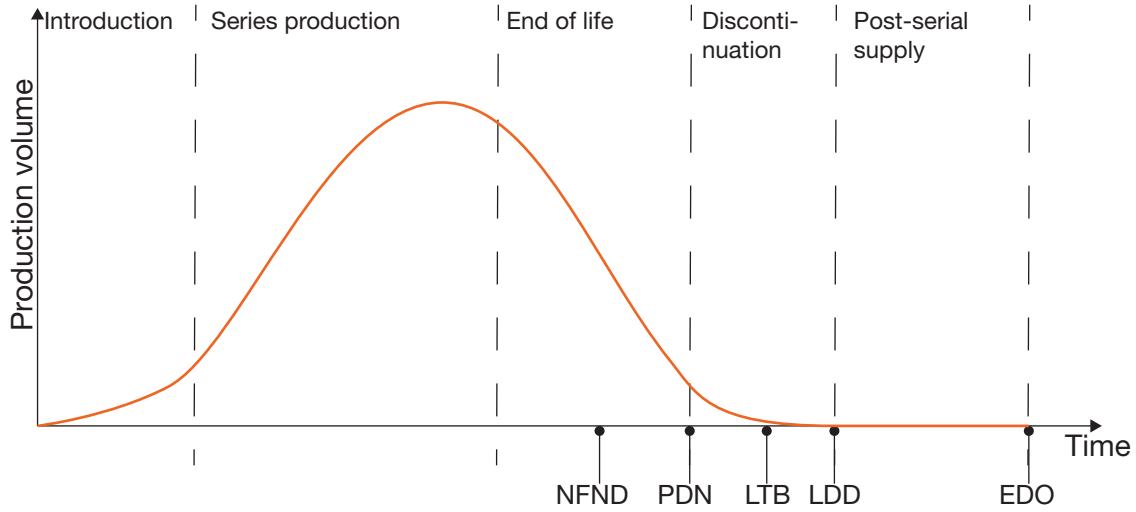
A. Reasons for obsolescence

There are many reasons why a product becomes obsolete. OSRAM Opto Semiconductors is striving to enhance products and to develop new LEDs for individual light applications. Therefore new products will replace older ones. Further examples of the obsolescence of LEDs are changes in standards or legislation. The obsolescence of suppliers products can also lead to the discontinuation of production. The product cycle is limited, due not least to market adjustments and economic reasons.

B. Product life cycle at OSRAM Opto Semiconductors

The graphic in Figure 1 illustrates the principle life cycle curve of LED production. Its life cycle time depends on the product. Some are shorter, other products exist for many years.

Figure 1: Principle life cycle curve of a product production



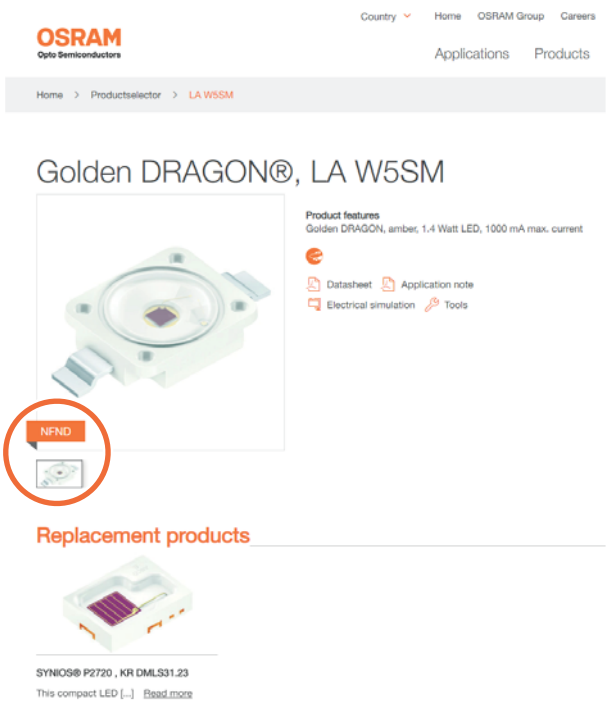
NFND	Not for new Designs
PDN	Product discontinuation notice
LTB	Last time buy
LDD	Last delivery date
EDO	End of delivery obligation

As the graphic shows, each product starts with an introduction phase that extends to a series production phase. This production period is affected by the reasons for obsolescence, as described in chapter "A. Reasons for obsolescence". Afterwards, this the “End of life” phase for product production starts and the production volume is reduced. From this point it is not recommended to use the product for new application designs.

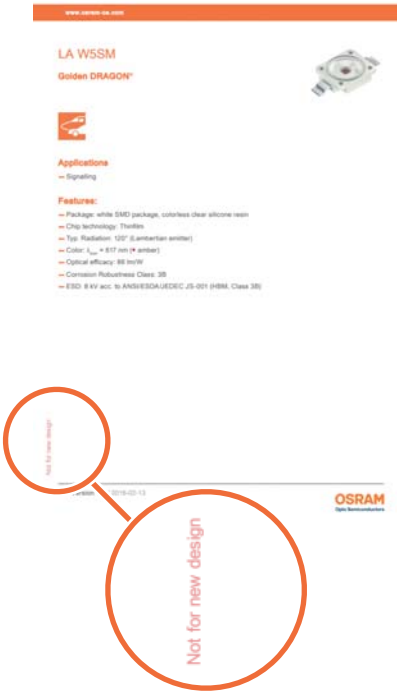
Customers will find a corresponding remark for the product on the website and also in the latest data sheet. Figure 2 shows an example of a product that has the status NFND. As may be seen, OSRAM Opto Semiconductors also offers a recommendation for replacement.

Figure 2: Example of an NFND product

NFND marking with recommended replacement product on the OS website



NFND marking in the data sheet



A product discontinuation notice (PDN) follows by the end of this “End of life” phase. This phase provides the final opportunity to order the product (“last time buy”) and the final delivery is made by the end of this phase. Here starts the post serial supply.

C. Long-term availability (LTA) at OSRAM Opto Semiconductors

With regard to DIN EN/IEC 62402 OSRAM Opto Semiconductors offers various possibilities for post-serial supply. This is an individual supply, depending on the product. For the long-term storage process OSRAM Opto Semiconductors proceeds according to DIN EN/IEC 62435-1. Please contact OSRAM Opto Semiconductors if post-serial supply is required. Therefore, it is essential to consider which factors may affect LEDs during long-term storage or adversely affect their processing, such as solderability.

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ABOUT OSRAM OPTO SEMICONDUCTORS

OSRAM, Munich, Germany is one of the two leading light manufacturers in the world. Its subsidiary, OSRAM Opto Semiconductors GmbH in Regensburg (Germany), offers its customers solutions based on semiconductor technology for lighting, sensor and visualization applications. OSRAM Opto Semiconductors has production sites in Regensburg (Germany), Penang (Malaysia) and Wuxi (China). Its headquarters for North America is in Sunnyvale (USA), and for Asia in Hong Kong. OSRAM Opto Semiconductors also has sales offices throughout the world. For more information go to www.osram-os.com.

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