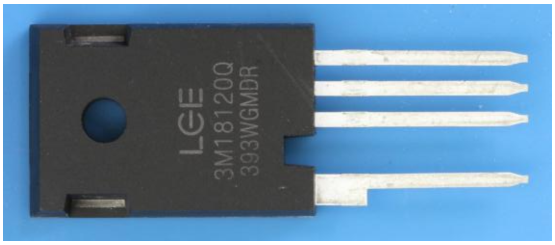
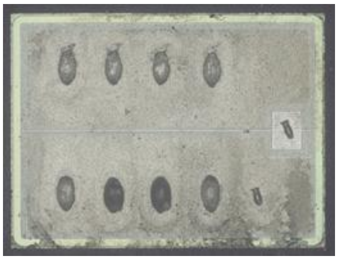
SiC MOSFET(1200V)：
LGE (Luguang Electronic Technology) LGE3M18120Q Overview Analysis Report



Package



SiC MOSFET die

Report Overview

China has expanded its presence to the point where, in 2024 SiC power semiconductor sales, three of the top ten companies are Chinese. Adoption is expected to continue growing across a wide range of fields, including electric vehicles (EVs), renewable energy, and more.
The number of Chinese companies entering the SiC power semiconductor market is also increasing, with estimates reaching around 100 firms. LTEC has evaluated the SiC technology levels of major manufacturers such as BYD, Basic, Sanan, and Inventchip. However, in order to understand the overall technological landscape in China, it is considered important to investigate companies beyond the major players as well.
LTEC has now released an overview analysis report examining the SiC MOSFET technology level of LGE (Luguang Electronic Technology) in China..

Product Features

Product type: LGE3M18120Q V_{DS}=1200V、I_D=105A、$R_{DS(ON)}$=18mΩ
Released data: 2024 (Datasheet)

Datasheet：https://www.lcsc.com/datasheet/C28451336.pdf

Applications：Motor drivers, solar/wind inverters, EV charging stations,
AC/DC and DC/DC converters, uninterruptible power supplies (UPS)

Report No：25R-0394-1　Released day：2025.11.04

Analysis result summary

Overview Analysis Report (20 pages)

- The cross-sectional structures of the cell array, die edge, and epitaxial layer were confirmed.
- A comparison of technology levels with major manufacturers—such as Basic and Wolfspeed—was also conducted, including metrics such as specific on-resistance and cell pitch.

If you would like a detailed structure analysis report for this product , please contact us.

Report price

Delivered one week after order placement. Please contact us for report pricing.

Overview Analysis Report　Table of Contents

LGE (Luguang Electronic Technology)

LGE was established in September 2002 and is engaged in the design, manufacturing, and sales of discrete semiconductors. With more than 20 years of engineering and manufacturing experience, LGE’s products are widely used in both consumer and industrial electronic equipment, including automobiles, smart home devices, white goods, lighting, communications, IT, and intelligent systems.

LGE has also established branch offices and authorized distributors in Europe, Eastern Europe, North America, South America, and countries across Southeast Asia.

https://www.lgesemi.com/

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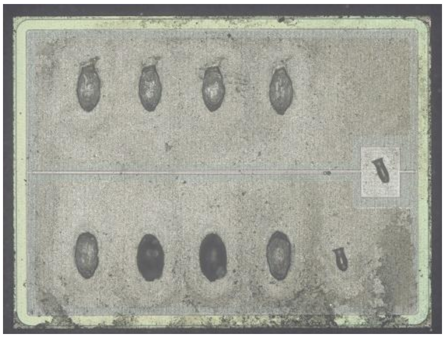
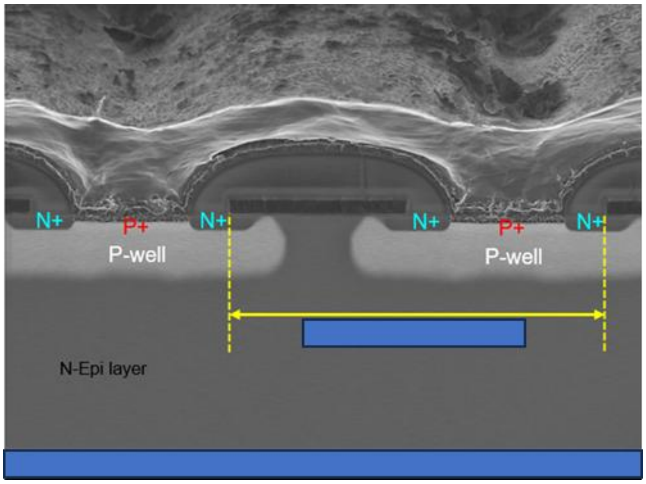
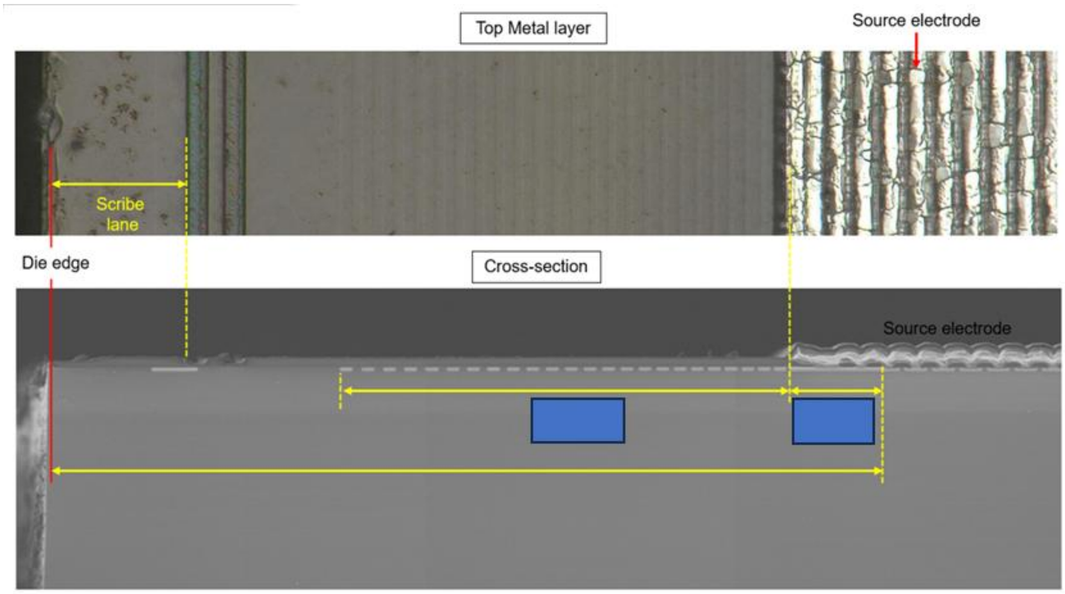
Excerpt from Overview Analysis Report



Die image (Top metal layer)



Cell array cross-section SEM Image



Die edge cross-section SEM Image

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