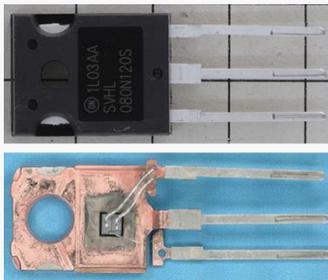
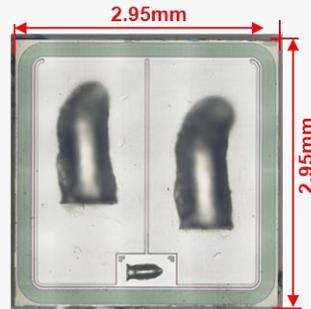


On SEMI NVHL080N120SC1 SiC-MOSFET Die Structure and Process Analysis Reports

February 2020. LTEC Corporation released detailed structure and process analysis reports of the ON-Semiconductor 1200V SiC MOSFET.



Package



Die image

Product overview

In March 2019, ON-Semiconductor announced production of their 1200V, $R_{on}=80m\Omega$ and $I_d=20A$ SiC MOSFET, promising high power density and efficiency. These features simplify the need for thermal management, BOM cost, size and weight. *The NVHL080N120SC1 is AEC-Q101 qualified for stringent automotive applications.*

Report contents

SiC-MOSFET structural analysis report

- Package appearance, package cross-section analysis, EDX material analysis
- SiC-MOSFET die plane analysis, layout
- SiC-MOSFET die cross section analysis, cell part, die edge

SiC-MOSFET process and device characteristics analysis report

- Estimation of SiC-MOSFET manufacturing process flow and schematic flow. Cross section is based on structural analysis results.
- Electrical characteristics evaluation and correlation with structural parameters

Structure analysis: \$6,000 Device analysis: \$4,600

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