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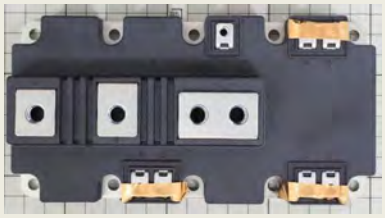
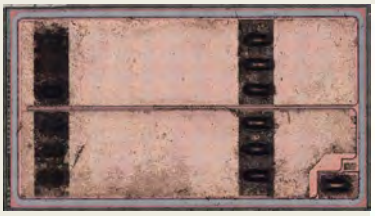
INFINEON FF1200R12IE5 PRIME PACK™2 IGBT MODULE STRUCTURE ANALYSIS REPORT

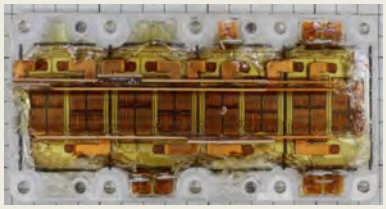
November 2017. LTEC Corporation released a detailed structure and process analysis report of this new 1200V, 1200A half bridge IGBT power module using 5th generation IGBT device and forward diode. The new power module can operate at higher temperature (175C°) and higher power density (1,200A) than previous versions.



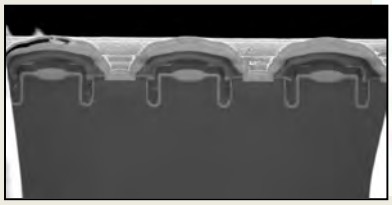
Module



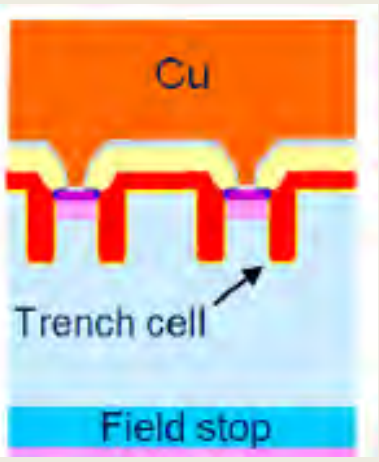
5th gen. IGBT die image



Module after resin removal



SEM cross-section



Reconstructed structure

In order to achieve high temperature operation and high power density, several new technologies are implemented within this new device:

1. Cu top metal and bond wire (Infineon XT technology ™)
2. Ag-sintered layer die attach
3. Dual-oxide trench to reduce Qg

The report has two individually purchasable sections: a 104-page Structure Analysis Section, and a 28-page Process Analysis section. The Structure Analysis Section reveals the physical construction of the device, including EDX materials analysis, and many other fine details. The Process Analysis Section includes manufacturing process flow and the estimated number of photo masking steps.

Structure analysis report: $5,000 / Process analysis report: $5,000

Contact LTEC Corporation for the current price as it decreases over time

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