

# GaN HEMT Devices

High-speed switching power control



## Features

- Utilizes gallium nitride on silicon substrate
- Achieves high-speed operation using two-dimensional electron gas
- Supports large currents and high temperatures

## Applications

- Industrial equipment (servers, base stations)
- Automotive

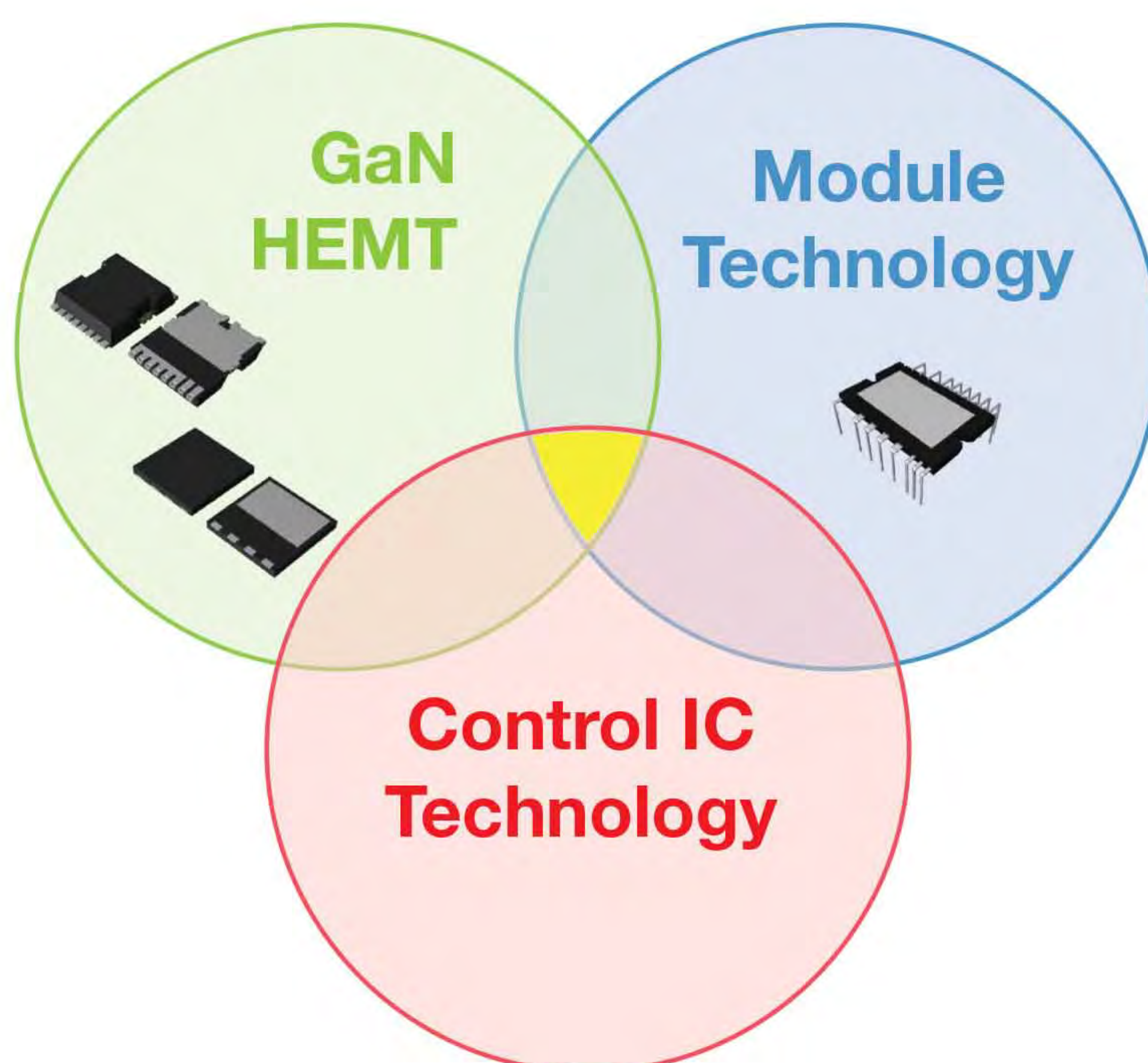


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Combining ROHM's original technologies



## Development of Optimized ICs for GaN driving

- Supports high frequency topologies >1MHz
- Faster response
- Built-in overcurrent protection function

ROHM applies proprietary control and module expertise cultivated over many years to GaN

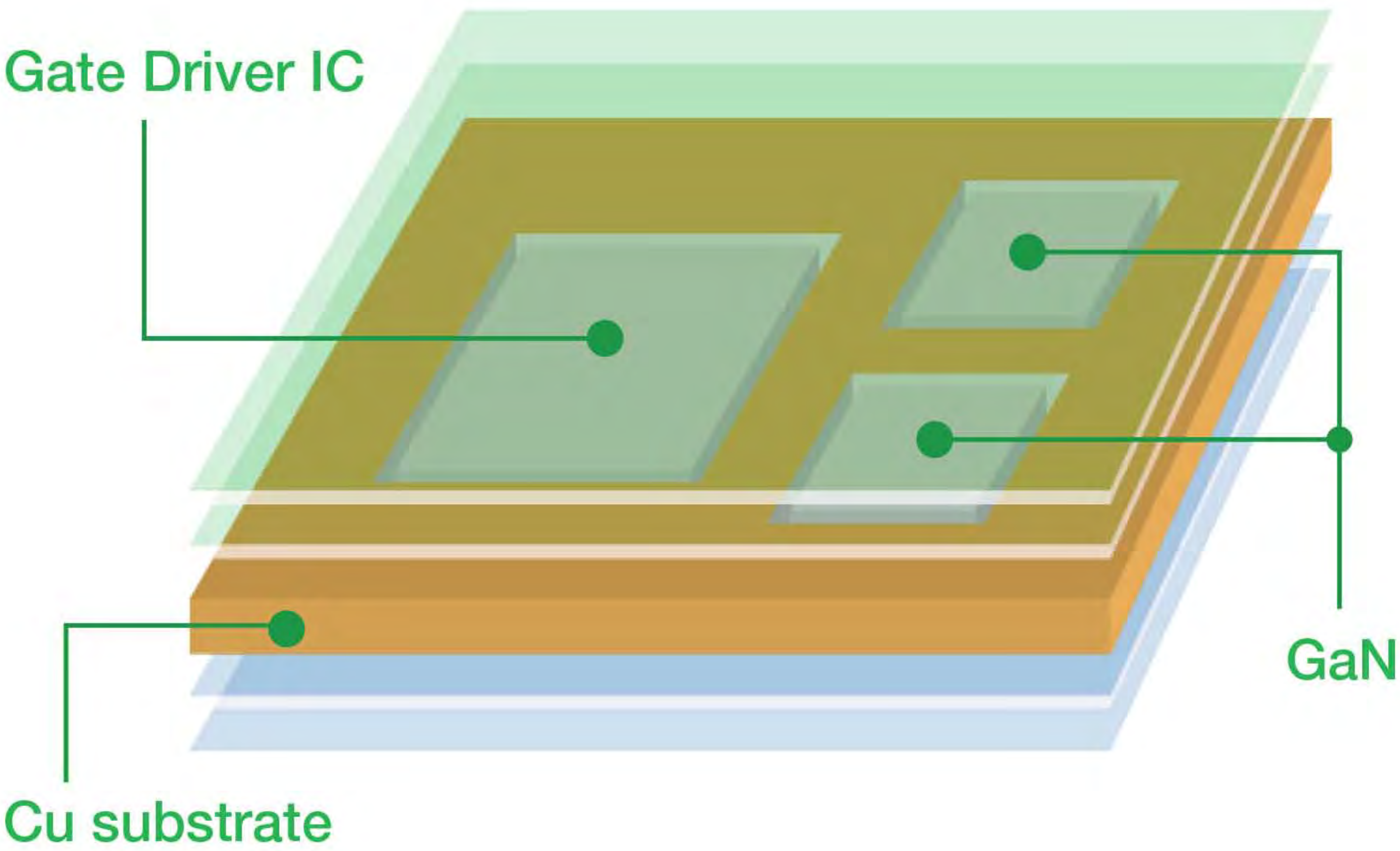


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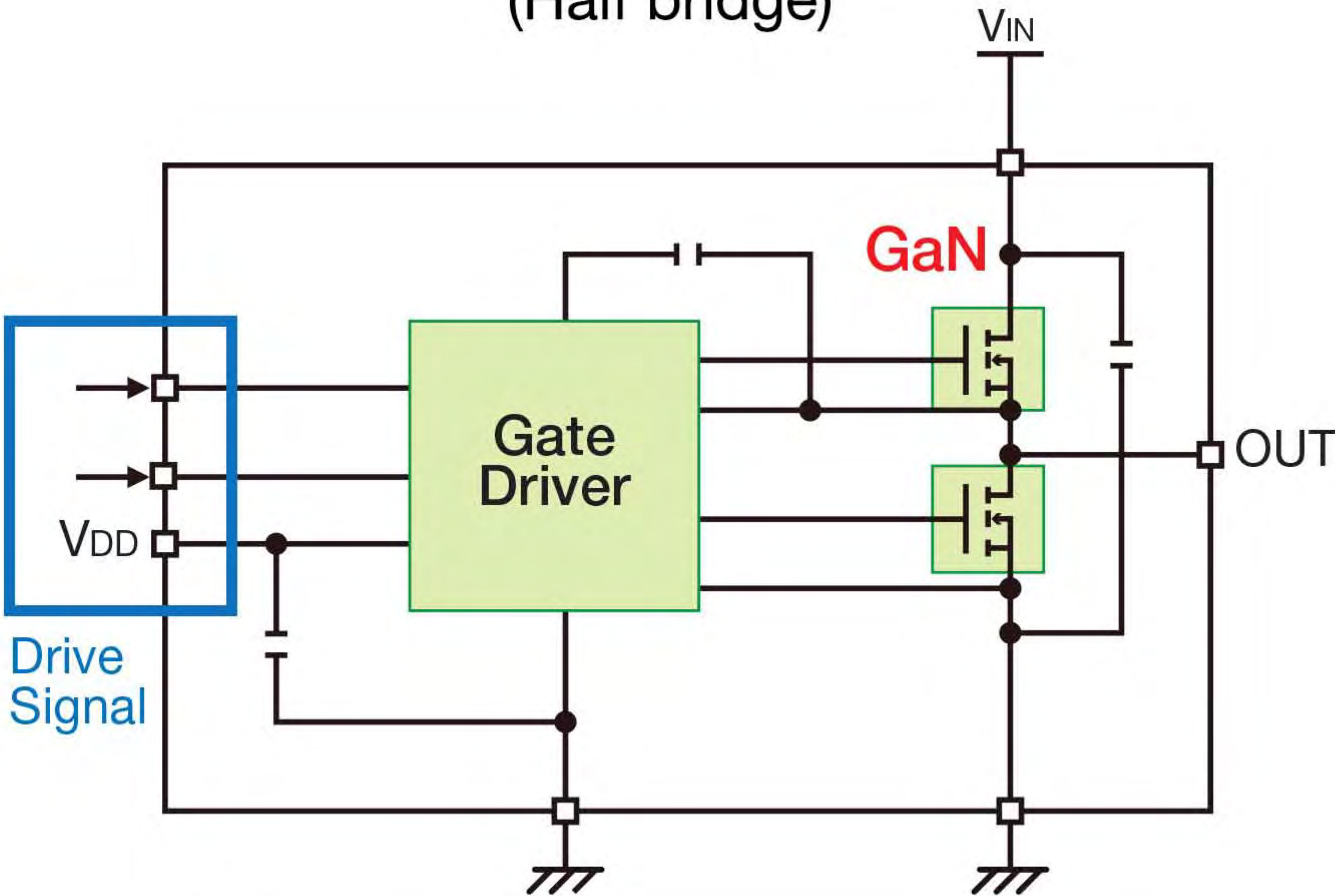
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## Embedded package



Internal Circuit Diagram  
(Half bridge)



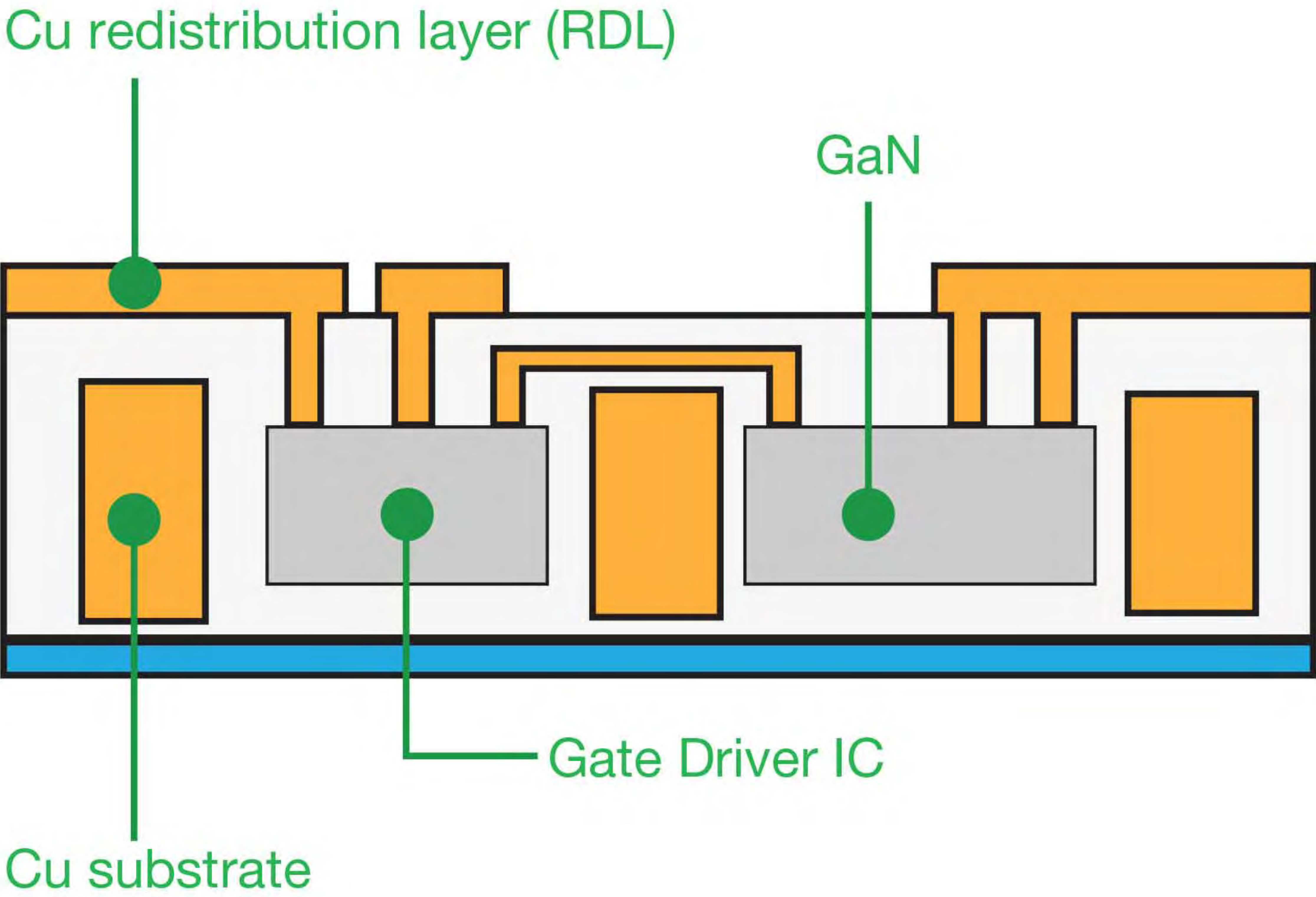


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## Cross section



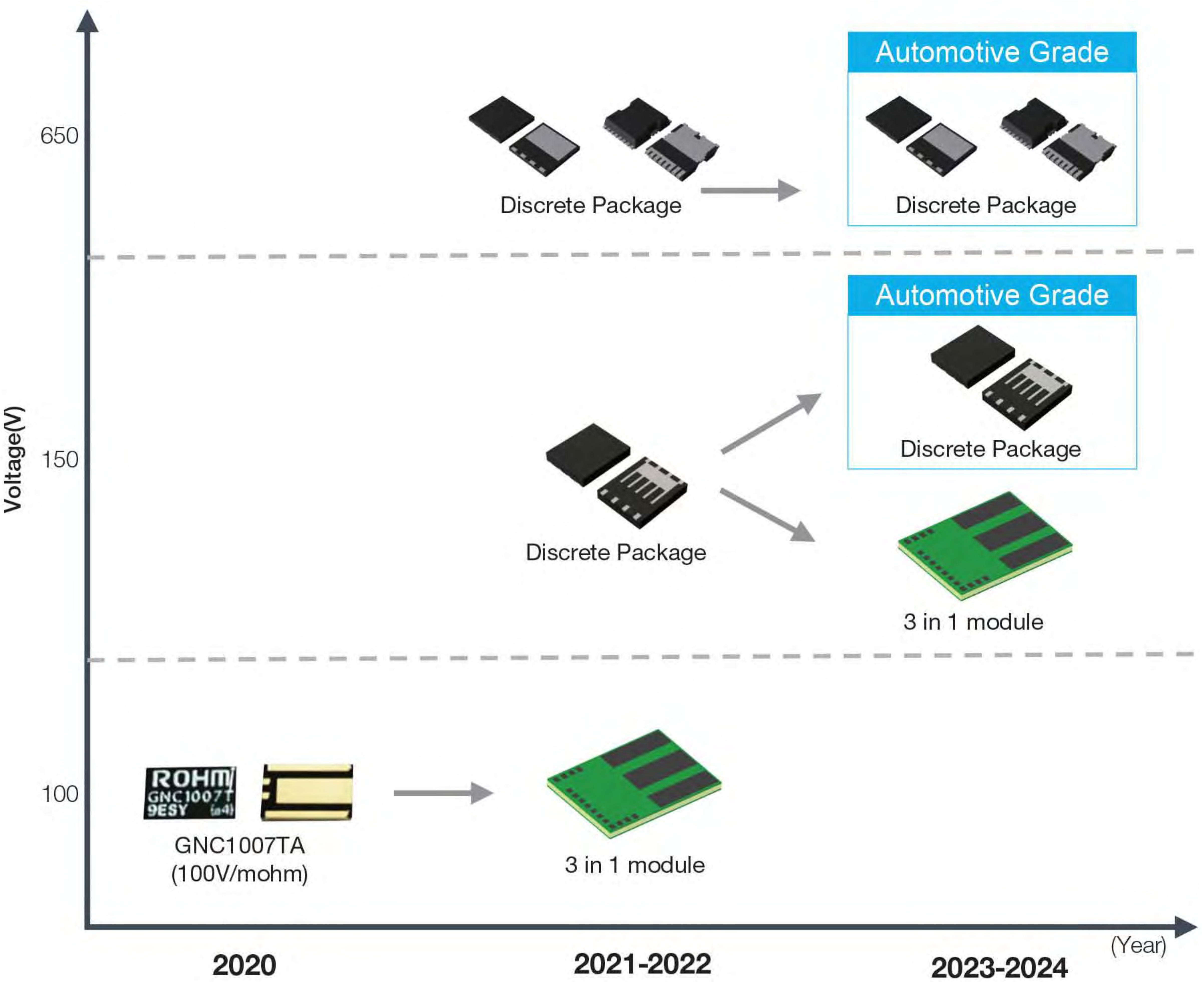


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## Power device applications and road map



In addition to the current lineup suitable for industrial use, automotive-grade products will be available from 2023

