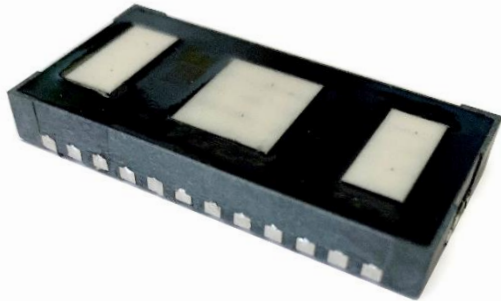


# GAN POWER BRIDGE MODULES

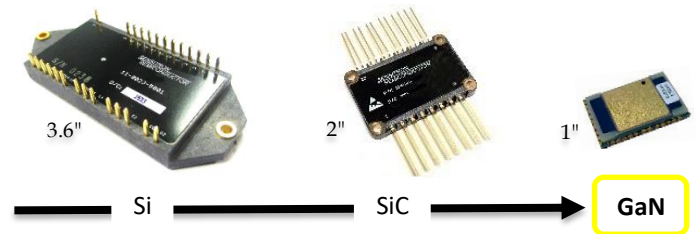
## SENSITRON GaN MODULE FEATURES:

- More efficient than Si MOSFET based modules
  - Low RDSon
  - Fast ton and toff times (10X more than Si)
- Integrated gate drive
- Low inductance package design can take maximum advantage of high switching speeds
- PWM frequencies up to 1Mhz
- Smaller input and output filters
- Topside cooling results in optimal thermal performance



### APPLICATION: DC-DC Converters

- GaN features allow for maximum power density
- Bridge Modules can be combined/provided with custom configurations to support any topology
- Integrated Gate drive simplifies implementation



GaN Technology allows for a significant package size reduction.

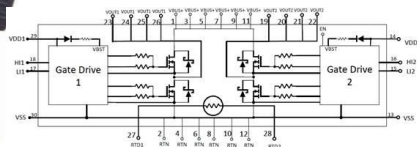
### APPLICATION: Motor Drive

- GaN features allow for maximum power density for both brush and BLDC drives
- Switching times can be customized to optimize DV/DT



Green – Vout  
Purple – PWM  
Red - Current

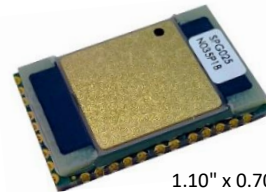
Double pulse test results 220V @ 30A  
SPG025N035P1B Top Switch



2" x 1" x .25"

### Full Bridge IPM, SPG025N020P2A

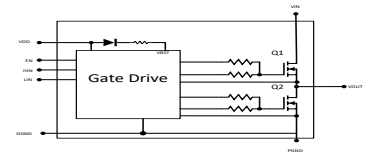
- 200V rated 25A
- High speed switching to 1Mhz
- Integrated gate drive
- Top side cooling to PCB
- Thermal interface through solder castellations



1.10" x 0.70" x 0.14"

### Half Bridge IPM, SPG025N035P1B

- 350V rated 20A
- 500Khz switching
- Integrated gate drive
- Top side cooling for optimal thermal performance
- 200V, rated 50A (In development)



## ABOUT SENISTRON SEMICONDUCTOR

Sensitron in Hauppauge, New York has over 50 years of heritage as manufacturer of high reliability power electronic component solutions for the Defense, Aerospace, and Space markets. Sensitron's products provide rugged, light-weight, and cost effective solutions for power switching, control, and protection. Our solutions include the use of wide band gap SiC and GaN modules in power conversion and motion control applications such as inverters, power modules, and motor controls.

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