



## New Trench IGBT Power Modules in Redesigned INT-A-PAK Package Reduce Conduction and Switching Losses, Offer Choice of Low $V_{CE(ON)}$ or Low $E_{off}$ for High Current Inverter Stages

### Product Benefits:

- Offered in newly redesigned INT-A-PAK package
- Combine Trench IGBTs with Gen IV FRED Pt<sup>®</sup> anti-parallel diodes
- Industry-low collector to emitter voltage of  $\leq 1.07$  V at +125 °C and rated current (GT100TS065S, VS-GT150TS065S, and VS-GT200TS065S)
  - Reduces conduction losses in output stages for TIG welding machines
- Extremely low switching losses, with  $E_{off}$  down to 1.0 mJ at +125 °C and rated current (VS-GT100TS065N and VS-GT200TS065N)
  - Ideal for high frequency power applications
- 650 V collector to emitter voltages
- Continuous collector current from 100 A to 200 A
- Very low junction to case thermal resistance
- UL-approved file E78996
- Can be directly mounted to heatsinks
- Low EMI reduces snubbing requirements
- RoHS-compliant



### Market Applications:

- Power supply inverters for railway equipment; energy generation, distribution, and storage systems; welding equipment; motor drives; and robotics

### The News:

Vishay Intertechnology introduces five new half-bridge IGBT power modules in the newly redesigned INT-A-PAK package. Built on Trench IGBT technology, the VS-GT100TS065S, VS-GT150TS065S, VS-GT200TS065S, VS-GT100TS065N, and VS-GT200TS065N offer designers a choice of two best in class technologies — low  $V_{CE(ON)}$  or low  $E_{off}$  — to lower conduction or switching losses in high current inverter stages for transportation, energy, and industrial applications.

- The devices' Trench IGBTs deliver improved power savings versus other devices on the market, while their Gen IV FRED Pt<sup>®</sup> anti-parallel diodes offer ultra soft reverse recovery characteristics
- Offering a new gate pin orientation, the modules' compact INT-A-PAK package is now 100 % compatible with the 34 mm industry-standard package to offer a mechanical drop-in replacement



## The Key Specifications:

Part #	V <sub>CES</sub>	I <sub>c</sub>	V <sub>CE(ON)</sub>	E <sub>off</sub>	Speed	Package
			@ IC and +125 °C			
VS-GT100TS065S	650 V	100 A	1.02 V	6.5 mJ	DC to 1 kHz	INT-A-PAK
VS-GT150TS065S	650 V	150 A	1.05 V	10.3 mJ	DC to 1 kHz	INT-A-PAK
VS-GT200TS065S	650 V	200 A	1.07 V	13.7 mJ	DC to 1 kHz	INT-A-PAK
VS-GT100TS065N	650 V	100 A	2.12 V	1.0 mJ	8 kHz to 30 kHz	INT-A-PAK
VS-GT200TS065N	650 V	200 A	2.13 V	3.86 mJ	8 kHz to 30 kHz	INT-A-PAK

### Availability:

Samples and production quantities of the new IGBT power modules are available now, with lead times of 13 weeks.

To access the product datasheets on the Vishay Website, go to

<http://www.vishay.com/ppg?97007> (VS-GT100TS065N)

<http://www.vishay.com/ppg?97011> (VS-GT100TS065S)

<http://www.vishay.com/ppg?96700> (VS-GT200TS065N)

<http://www.vishay.com/ppg?97061> (VS-GT150TS065S)

<http://www.vishay.com/ppg?97091> (VS-GT200TS065S)

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