Silicon Carbide Integrated Power Unit (IPU)

750V SiC Driver Embedded MOS IC – Gryphon M2 Series

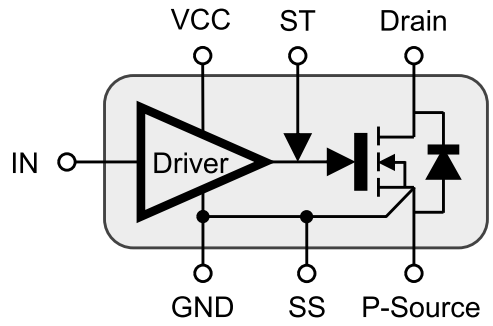
Product Information:

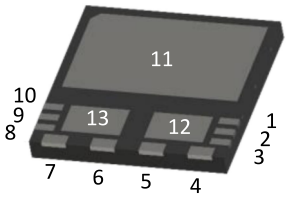
Features

- Gate-Driver Integrated SiC MOSFET
- Manipulatable Switching Speed Device
- Compatible with Standard Digital/PWMIC
- Optimized Clean Switching Performance
- Fully Compatible Pin Alignment with QFN8x8 SJ-MOS
- Fast Propagation Delays
- Wide Hysteresis (1V typical) for High-Noise Immunity
- Wide-range 5V to 18V V_{CC} Supply Input(1)
- Compact SMT Package
- Allow High Frequency Operation
- Realize Compact and Lightweight Systems
- RoHS Compliant and Halogen Free
- Integrated by AEC-Q101 Qualified SiC MOSFET

Potential Applications

- Switching Mode Power Supply
- PFC & DC/DC Converter
- Portable Adaptor
- Telecom Power
- Renewable Energy
- Class-D amplifier
- LED Lighting Power





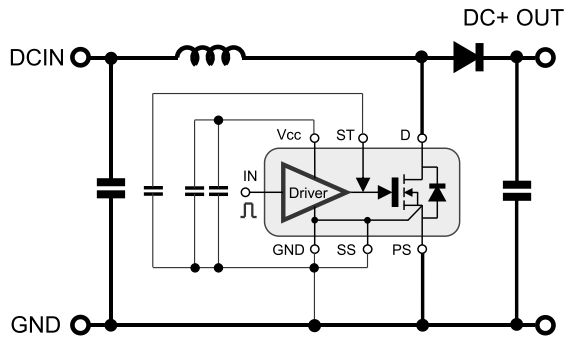
PQFN 8x8

PIN No.	Terminal
1	ST
2	VCC
3	GND
4	IN
5	GND
6	P-Source
7	P-Source
8	S-Source
9	S-Source
10	S-Source
11	Drain
12	GND
13	P-Source

Description

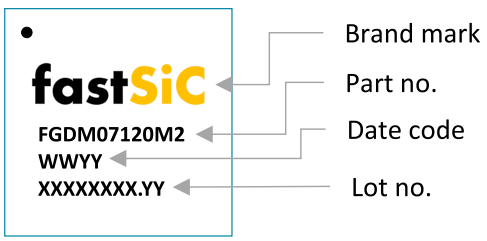
The FGDM07150M2 is a highly integrated 750 V, 150 mΩ SiC power solution in a compact PQFN 8x8 mm surface-mount package, combining a high-performance gate driver with a silicon carbide MOSFET to deliver a simplified, high-efficiency power stage. By integrating the gate driver directly with the SiC MOSFET, fastSiC enables a true “digital in, power out” powertrain module optimized for high-speed, high-voltage switching applications. This monolithic-like integration reduces external components, minimizes parasitic inductance, and enhances switching performance, allowing for faster design cycles and increased power density. The superior thermal conductivity and wide bandgap characteristics of SiC ensure excellent high-temperature operation and robust reliability, meeting AEC-Q101 standards. The FGDM07150M2 is ideal for next-generation applications requiring compact size, high efficiency, and rugged performance—empowering engineers to push the limits of power conversion design.

Application Example



Boost Converter

Marking Description



Part Number	Package	Marking
FGDM07150M2	PQFN8x8	FGDM07150M2
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For further information about comparable products, please contact (www.fastsic.com).