

650V GaN FET

Datasheet

1. Description

The G1N65 series FETs are hybrid normally-off Gallium Nitride (GaN) field effect transistors with the strongest gate and the lowest reverse voltage drop of all wide-band-gap devices in the market. They allow simple gate drive, offer best-in-class performance and outstanding reliability.

Features

- Strong gate with a high threshold, no need for negative gate drive, and a high repetitive input voltage tolerance of $\pm 20V$.
- Fast turn-on/off speed for reduced cross-over losses.
- Low Q_G and simple gate drive for lowest driver consumption at high frequencies.
- Lowest V_F in off-state reverse conduction among all SiC and GaN FETs for low loss during dead-times.
- Low Q_{RR} for outstanding hard-switched bridge applications.
- High spike tolerance of 800V for enhanced reliability.

Benefits

- Enable very high conversion efficiencies.
- Enable higher frequency for compact power supplies.
- End-product cost & size savings due to reduced cooling requirements.
- Improved safety & reliability due to cooler operation temperature.
- Higher output power due to the best efficiency and thermal capability.

Applications

- Half-bridge buck/boost, totem-pole PFC circuits or inverter circuits.
- High-efficiency/High-frequency phase-shift, LLC or other soft-switching topologies.

Gate	Pin1
Source	Pin2(Tab)
Drain	Pin3

Key Performance Parameters	
V_{DSS} (V)	650
$V_{DSS(PK)}$ (V) ^{a)}	800
$R_{DS(ON)}$ (m Ω) typical ^{b)}	35
Q_{OSS} (nC)	150
Q_G (nC)	22

^{a)} Duty < 1%, spike duration < 1 μ s, nonrepetitive

^{b)} Dynamic on-resistance

Part Number & Package Information		
Part #	Package	Package Base
G1N65R035TB-N	TO-247	Source

单击下面可查看定价，库存，交付和生命周期等信息

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