

## 产品概览

### NCV51705: Automotive SiC MOSFET Driver, Low-Side, Single 6 A High-Speed

欲看完整文档，请参阅数据表。

The NCV51705 driver is designed to primarily drive SiC MOSFET transistors. To achieve the lowest possible conduction losses, the driver is capable to deliver the maximum allowable gate voltage to the SiC MOSFET device. By providing high peak current during turn-on and turn-off, switching losses are also minimized. For improved reliability, dV/dt immunity and even faster turn-off, the NCV51705 can utilize its on-board charge pump to generate a user selectable negative voltage rail. For isolated applications, the NCV51705 also provides an externally accessible 5 V rail to power the secondary side of digital or high speed opto isolators.

#### 特性

- High Peak Output Current with Split Output Stages
- Extended Positive Voltage Rating up to 28 V Max
- User-adjustable Built-in Negative Charge Pump (-3.3 V to -8 V)
- Accessible 5 V Reference / Bias Rail
- Adjustable Under-Voltage Lockout
- Fast Desaturation Function
- QFN24 Package 4 x 4 mm
- AEC-Qualified

#### 应用

- High Performance Inverters
- High Power PFC
- High Power SiC Modules

#### 优势

- Allow independent Turn-ON/Turn-OFF Adjustment
- Efficient SiC MOSFET Operation during the Conduction Period
- Fast Turn-off and Robust dV/dt Immunity
- Minimize complexity of bias supply in isolated gate drive applications
- Sufficient VGS amplitude to match SiC best performance
- Self protection of the design
- Small & Low Parasitic Inductance package
- For SiC high power modules in HEV/EV

#### 终端产品

- On Board Chargers
- Traction Inverters
- High Power DC/DC converters

#### 器件电气规格

产品	Pricing (\$/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V <sub>in</sub> Max (V)	V <sub>CC</sub> Max (V)	Drive Source / Sink Typ (mA)	Rise Time (ns)	Fall Time (ns)	t <sub>o</sub> Max (ns)	Package Type
NCV51705MNTWG	1.6666	AEC Qualified PPAP Capable Pb-free Halide free	Active	SiC MOSFET	1	Single	Non-Isolated							QFNW-24

欲了解更多信息，请联系您当地的销售支援 [www.onsemi.cn](http://www.onsemi.cn)。

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