

## SMART GATE DRIVER OPTOCOUPLER

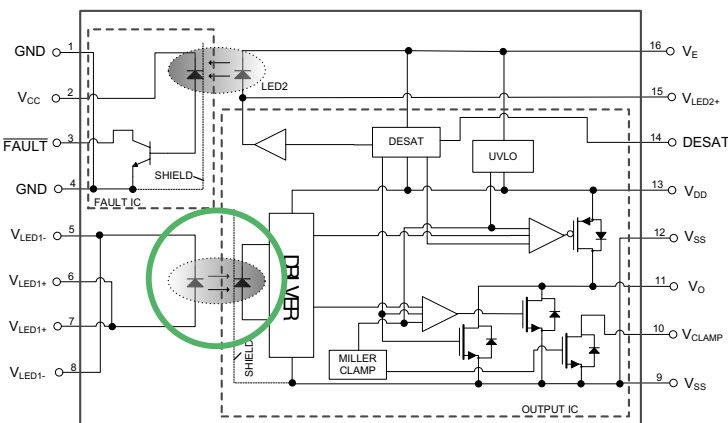
The FOD8332 is an advanced 2.5 A output current IGBT drive optocoupler capable of driving medium power IGBTs with ratings up to 1,200 V and 150 A. It is suited for fast-switching driving of power IGBTs and MOSFETs used in motor control inverter applications and high-performance power systems. The FOD8332 offers critical protection features necessary for preventing fault conditions that lead to destructive thermal runaway of IGBTs.

The device utilizes ON Semiconductor's (former Fairchild's) proprietary Optoplanar<sup>®</sup> coplanar packaging technology and optimized IC design to achieve reliable high isolation voltage and high noise immunity, characterized by high common-mode rejection and power supply rejection specifications. The device is housed in a wide-body 16-pin small-outline plastic package.

The gate-driver channel consists of an aluminium gallium arsenide (AlGaAs) light-emitting diode (LED) optically coupled to an integrated high-speed driver circuit with a low-RDS(ON) MOSFET output stage. The fault-sense channel consists of an aluminium gallium arsenide (AlGaAs) LED optically coupled to an integrated high-speed feedback circuit for fault sensing.

## FEATURES & BENEFITS

- Wide operating voltage range of 15V to 30V
- High output current capability – 2.5A
- 5000V isolation voltage rating
  - 1414V(peak) working voltage (UIORM) ideal for 1200V IGBTs
- High common mode immunity – 35k V/μs minimum
- Low supply currents (ICCH, ICCL)
  - FOD3120 – 3.8mA maximum
  - FOD3150 – 5mA maximum
- >8mm creep age and clearance distance



## APPLICATIONS

- Solar Inverters
- Motor Drives
- Power Inverters
- Uninterruptible Power Supplies
- Induction Heating
- Isolated MOSFET/IGBT drives

## SAFETY AND REGULATORY

- UL1577, 5000 VRMS for 1 min.
- DIN-EN/IEC60747-5-5

## PACKAGE

- SO16

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