

Product Overview

FOD8482: Optically Isolated Intelligent Power Module (IPM) Driver in Stretched Body SOP 6-Pin

For complete documentation, see the data sheet.

The FOD8480 and FOD8482 are low power optocouplers, which support isolated interface to Intelligent Power Module (IPM) communicating digital control signals from the controller to the IPM, without conducting ground loops or hazardous voltages. The FOD848x Series, packaged in a stretched body 6-pin small outline plastic package, consists of an aluminum gallium arsenide (AlGaAs) light emitting diode and an integrated high gain photo detector. The detector has a detector threshold with hysteresis. The hysteresis provides differential mode noise immunity and eliminates the potential for output signal chatter. Its non-inverting output is designed as totem pole, which does not require any pull-up resistor. The FOD8482 has a lower threshold input current, IFLH, at 3.0 mA maximum. For the complete FOD848x Series, the Electrical and Switching Characteristics are guaranteed over the extended industrial temperature range of -40°C to 100°C and a VDD range of 4.5 V to 30 V. Low IF and wide VDD range allow compatibility with TTL, LSTTL, and CMOS logic and result in lower power consumption compared to other high speed optocouplers.

Features

- Maximum Threshold Input Current, IFLH,
 - ◆ FOD8480 – 5.5 mA
 - ◆ FOD8482 – 3.0 mA
- FOD8480T and FOD8482T - 8 mm Creepage and Clearance Distance, and 0.4 mm Insulation Distance to Achieve Reliable and High Voltage Insulation
- High Noise Immunity Characterized by Common Mode Transient Immunity (CMTI)– 20 kV/μs Minimum CMTI
- Specifications Guaranteed Over Extended Industrial Temperature Range, -40°C to 100°C
- Wide Operating Voltage Range, 4.5 V to 30 V
- Safety and Regulatory Approvals– UL1577, 5,000 VACRMS for 1 Minute– DIN-EN/IEC60747-5-5, 1,140 V Peak Working Insulation Voltage

Applications

- Isolating Intelligent Power Module
- Isolating Industrial Communication Interface

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Data Rate (Mbps)	V _{CC} (Max) (V)	V _{CC} (Min) (V)	Channels	I _{FT} (Max) (mA)	V _{OL} (Max) (V)	I _{CCL} (Max) (mA)	t _{PHL} (Max) (ns)	t _{PLH} (Max) (ns)	PWD (Max) (ns)	CMR (Max) (kV/μs)	V _{ISO} (Min) (V)	T _{OPR} (Min) (°C)	T _{OPR} (Max) (°C)	Package Type
FOD8482	1.1066	Pb-free non AEC-Q and PPAP	Active	1 Mb/s	30	4.5	1	3	0.5	2.5	300	300	250	40	5000	-40	100	SOI C-6
FOD8482R2	1.12	Pb-free non AEC-Q and PPAP	Active	1 Mb/s	30	4.5	1	3	0.5	2.5	300	300	250	40	5000	-40	100	SOI C-6
FOD8482T	1.12	Pb-free non AEC-Q and PPAP	Active	1 Mb/s	30	4.5	1	3	0.5	2.5	300	300	250	40	5000	-40	100	SOI C6W
FOD8482TR2	1.1333	Pb-free non AEC-Q and PPAP	Active	1 Mb/s	30	4.5	1	3	0.5	2.5	300	300	250	40	5000	-40	100	SOI C6W

For more information please contact your local sales support at www.onsemi.com.

Created on: 4/20/2021