

Product Overview

FOD8320: High Noise Immunity, 2.5A Output Current, Gate Drive Optocoupler in Optoplanar® Wide Body SOP 5-Pin

For complete documentation, see the data sheet.

The FOD8320 is a 2.5A output current gate drive optocoupler, capable of driving medium power IGBT/MOSFETs. It is ideally suited for fast switching driving of power IGBT and MOSFETs used in motor control inverter applications, and high-performance power systems. It utilizes ON Semiconductor's coplanar packaging technology, Optoplanar®, and optimized IC design to achieve reliably high insulation voltage and high noise immunity. It consists of an aluminum gallium arsenide (AlGaAs) light-emitting diode (LED) optically coupled to an integrated circuit with a high-speed driver for push-pull MOSFET output stage. The device is housed in a wide body 5-pin small outline plastic package.

Features

- Fairchild's Optoplanar® packaging technology provides reliable and high voltage insulation with greater than 10mm creepage and clearance distance and 0.5mm internal insulation distance, while still offering a compact footprint ■ 2.5A Output Current Driving Capability for Medium-Power IGBT/MOSFET
- P-Channel MOSFETs at Output Stage Enable Output Voltage Swing Close to Supply Rail ■ 35kV/μs Minimum Common Mode Rejection ■ Wide Supply Voltage Range: 15V to 30V ■ Fast Switching Speed Over Full Operating Temperature Range:
- 400ns Max. Propagation Delay
- 100ns Max. Pulse Width Distortion ■ Under-Voltage Lockout (UVLO) with Hysteresis ■ Extended Industrial Temperature Range: -40 to 100°C ■ Safety and Regulatory Approvals:
- UL1577, 5,000VRMS for 1 min.
- DIN EN/IEC60747-5-2 (Pending Approval)

Applications

- AC-DC Merchant Power Supply
- Consumer Appliances
- Industrial Motor

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	I_{FLH} (Max) (mA)	I_{DDL}, I_{DDH} (Max) (mA)	I_{OL}, I_{OH} (Min) (A)	t_{PHL}, t_{PLH} (Max) (ns)	PWD (Max) (ns)	V_{UVLO} (Typ) (V)	V_{UVLO-} (Typ) (V)	CMR (Min) (kV/μs)	V_{ISO} (Min) (V)	T_{OPR} (Min) (°C)	T_{OPR} (Max) (°C)	Package Type
FOD8320	1.6666	Pb-free	Active	5	3.8	2	400	100	12.7	11.2	35	5000	-40	100	SOIC6 W Less Pin 2
FOD8320R2	1.6666	Pb-free	Active	5	3.8	2	400	100	12.7	11.2	35	5000	-40	100	SOIC6 W Less Pin 2
FOD8320R2V	1.6666	Pb-free	Active	5	3.8	2	400	100	12.7	11.2	35	5000	-40	100	SOIC6 W Less Pin 2
FOD8320V	1.6666	Pb-free	Active	5	3.8	2	400	100	12.7	11.2	35	5000	-40	100	SOIC6 W Less Pin 2

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

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