



Product Overview

FDMQ8205: GreenBridge™ 2 Series of High-Efficiency Bridge Rectifiers

For complete documentation, see the data sheet.

FDMQ8205 is GreenBridge™2 series of quad MOSFETs for a bridge application so that the input will be insensitive to the polarity of a power source coupled to the device. Many known bridge rectifier circuits can be configured using typical diodes. The conventional diode bridge has relatively high power loss that is undesirable in many applications. Especially, Power over Ethernet (PoE) Power Device (PD) application requires high-efficiency bridges because it should be operated with the limited power delivered from Power Source Equipment (PSE) which is classified by IEEE802.3at. FDMQ8205 is configured with low rDS(on) dual P-ch MOSFETs and N-ch MOSFETs so that it can reduce the power loss caused by the voltage drop, compared to the conventional diode bridge. FDMQ8205 enables the application to maximize the available power and voltage and to eliminate the thermal design problems in PoE PD applications. FDMQ8205 GreenBridge™2 is compatible with IEEE802.3at PoE standard by not compromising detection and classification requirement as well as small backfeed voltage.

Features

- Low Power Loss GreenBridge™ Replaces Diode Bridge
- Self Driving Circuitry for MOSFETs
- Low rDS(on) 80V Rated MOSFETs
- Maximizing Available Power and Voltage
- Eliminating Thermal Design Problems
- IEEE802.3at Compatible Meet Detection and Classification Requirement Work with 2 and 4-pair Architecture Small Backfeed Voltage
- Compact MLP 4.5x5 Package

Applications

- This product is general usage and suitable for many different applications.

End Products

- IP Phones
- Network Cameras
- Wireless Access Points
- Thin Clients
- Microcell

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channel Polarity	Configuration	V _{DSS} (BR) Min (V)	V _{GS} Max (V)	V _{GS} (th) Max (V)	I _D Max (A)	P _D Max (W)	R _{DS(on)} Max @ V _{GS} = 2.5 V (mΩ)	R _{DS(on)} Max @ V _{GS} = 4.5 V (mΩ)	R _{DS(on)} Max @ V _{GS} = 10 V (mΩ)	Q _s Typ @ V _{GS} = 4.5 V (nC)	Q _s Typ @ V _{GS} = 10 V (nC)	C _{iss} Typ (pF)	Package Type
FDMQ8205	1.7052	Pb-free Halide free non AEC-Q and PPAP	Active	Complementary	Quad	-	-	-	-	2.5	-	-	-	-	-	-	WDF N-12

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

Created on: 1/21/2021