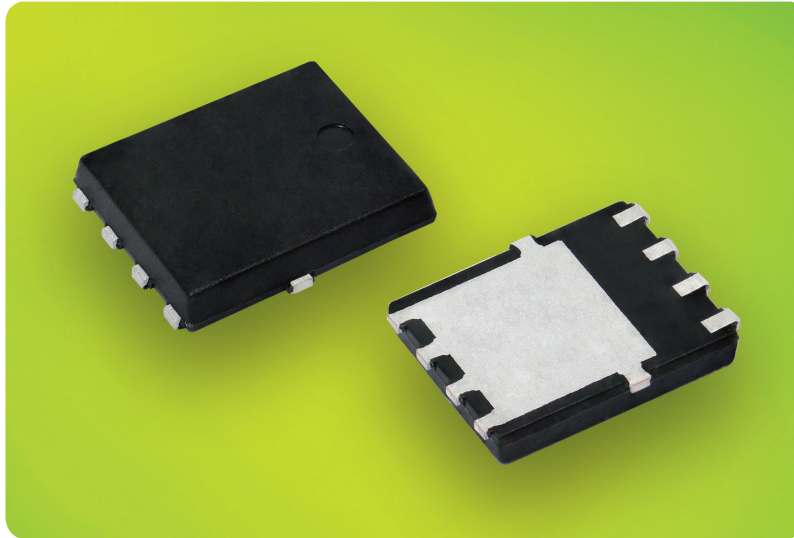




DIODES

FRED Pt® Ultrafast Rectifiers in FlatPAK™ 5 x 6

200 V FRED Pt® Ultrafast Rectifiers in Low Profile FlatPAK™ 5 x 6 Package Increase Power Density and Performance Efficiency



KEY BENEFITS

- 200 V reverse voltage
- FlatPAK™ 5 x 6 package features low profile height of < 1 mm
- 2000 hours of high temperature reverse bias (HTRB) testing guarantees long term reliability
- Offered in AEC-Q101 qualified and commercial / industrial versions
- High forward current ratings of 6 A (2 x 3 A) and 8 A (2 x 4 A)
- Ultrafast recovery times down to 25 ns
- Low reverse recovery charge
- Soft recovery features
- Operating temperature range of -55 °C to +175 °C
- Low forward drop down to 0.7 V
- MSL moisture sensitivity level 1, per J-STD-020, LF maximum peak of 260 °C
- Meets JESD 201 class 2 whisker test
- RoHS-compliant and halogen-free

APPLICATIONS

- DC/DC converters
 - AEC-Q101 rectifiers: automotive engine control units (ECU), anti-lock braking systems (ABS), and HID and LED lighting
 - Commercial / industrial rectifiers: telecom power supplies

RESOURCES

- Datasheet: please see next page for the list of products
- For technical questions contact DiodesAmericas@vishay.com, DiodesEurope@vishay.com, DiodesAsia@vishay.com
- Material categorization: for definitions of compliance, please see www.vishay.com/doc?99912

RoHS COMPLIANT
HALOGEN FREE

A **WORLD OF**
SOLUTIONS™



DIODES

FRED Pt® Ultrafast Rectifiers in FlatPAK™ 5 x 6

Vishay's 200 V FRED Pt Ultrafast recovery rectifiers in the thermally efficient FlatPAK 5 x 6 package with a low profile of < 1 mm assure long term reliability based on 2000 hours of high temperature reverse bias (HTRB) testing. The commercial / industrial VS-6DKH02-M3 and VS-8DKH02-M3 and the AEC-Q101 qualified (and Automotive Grade) VS-6DKH02HM3 and VS-8DKH02HM3 deliver high power density and efficiency for automotive and telecom applications.

- Configured as dual-die rectifiers with separate cathode connections, allowing designers to simplify PCB layouts by utilizing one package instead of two smaller ones
- Vishay's FlatPAK features the standard footprint of 5 x 6 QFN (quad flat no lead) packages widely used by other technologies, such as MOSFETs, and allows for different circuit topologies
- Low forward voltage drop reduces power losses and improves efficiency
- Ideal for automated placement and allow for automated optical inspection (AOI) in automotive systems

VISHAY P/N	VS-6DKH02-M3	VS-6DKH02HM3	VS-8DKH02-M3	VS-8DKH02HM3
Forward Current $I_{F(AV)}$	2 x 3 A	2 x 3 A	2 x 4 A	2 x 4 A
Forward Voltage V_F at I_F	0.71 V	0.71 V	0.7 V	0.7 V
Reverse Recovery Time t_{rr}	25 ns	25 ns	25 ns	25 ns
AEC-Q101	No	Yes	No	Yes