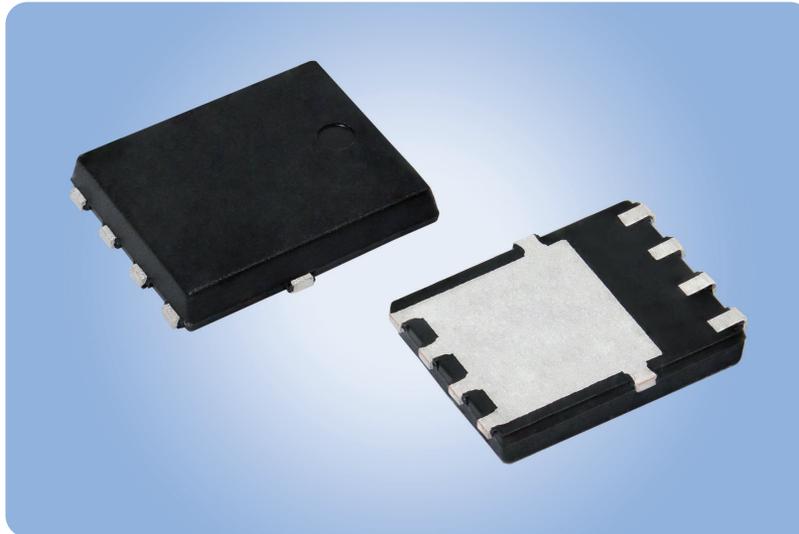




DIODES

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

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

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





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 Vishay 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

Part Number	$I_{F(AV)}$ (A)	V_F at I_F (V)	t_{rr} (ns)	AEC-Q101 Qualified
VS-6DKH02-M3	2 x 3	0.71	25	No
VS-6DKH02HM3	2 x 3	0.71	25	Yes
VS-8DKH02-M3	2 x 4	0.70	25	No
VS-8DKH02HM3	2 x 4	0.70	25	Yes