

Expanded Portfolio of Power Modules in SOT-227 Package, Featuring ThunderFET® Power MOSFETs and Standard, FRED Pt®, and TMBS® Diodes



KEY BENEFITS

- Dual, single-phase bridge, and single-switch topologies in wide range of current and voltage ratings
- SOT-227 package
- Single-switch modules feature 150 V and 200 V ThunderFET® power MOSFETs and current to 400 A
- 1200 V insulated standard recovery rectifier modules feature dual topology and high forward current to 220 A
- 300 V and 650 V insulated hyperfast and ultrafast rectifier modules feature FRED Pt® diodes and dual and single-phase bridge topologies
- 170 V insulated TMBS® (Trench MOS Barrier Schottky) rectifier module features dual topology and current of 300 A
- RoHS-compliant and UL-approved

APPLICATIONS

- Single-switch modules — high performance DC/DC converters, battery chargers, AC motor drives, and UPS
- Standard recovery rectifier modules — OR-ing applications in electric vehicle chargers and single- and three-phase bridges
- Hyperfast and ultrafast rectifier modules — low voltage, high frequency inverters in welding machines and UPS, and output rectification for charging stations and switch mode power supplies
- TMBS® rectifier module — high frequency switch mode power supplies, DC/DC converters, and plasma cutters

RESOURCES

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





DIODES

Power Modules in SOT-227

Vishay expands its portfolio of power modules in the SOT-227 package with seven new devices featuring ThunderFET® power MOSFETs and standard, FRED Pt®, and TMBS® diodes. The Vishay Semiconductors modules are available in dual, single-phase bridge, and single-switch topologies with a variety of current and voltage ratings.

- Offering includes Vishay's first:
 - Single-switch modules featuring ThunderFET® power MOSFETs with voltages of 150 V and 200 V
 - 1200 V insulated standard recovery rectifier modules in the SOT-227 package
 - Hyperfast rectifier module featuring 300 V in a dual topology
 - Ultrafast single-phase bridge rectifier module
 - 170 V TMBS® rectifier module
- While competing devices typically offer operating temperatures to +150 °C, the power MOSFET, hyperfast, and TMBS® modules provide high temperature performance to +175 °C

VISHAY P/N	SILICON TYPE	TOPOLOGY	CURRENT (A)	VOLTAGE (V)
VS-FC420SA15	ThunderFET® power MOSFET	Single switch	400	150
VS-FC270SA20	ThunderFET® power MOSFET	Single switch	273	200
VS-RA160FA120	Standard high voltage diode	Dual	160	1200
VS-RA220FA120	Standard high voltage diode	Dual	220	1200
VS-UFH280FA30	FRED Pt® diode	Dual	280	300
VS-UFH60BA65	FRED Pt® diode	Single-phase bridge	60	650
VS-QA300FA17	TMBS® diode	Dual	300	170