

Power MOSFET Modules in SOT-227 Package



The DNA of tech.™

High-Efficiency Modules for Low-Voltage Power Conversion

Configured as single switches, Vishay's new power MOSFET modules are ideal for efficiently managing very high currents in low-voltage power converters. Offered in the SOT-227 package, the modules feature n-channel MOSFETs with voltage ratings of 100 V to 500 V and current ratings of 40 A to 435 A.

Applications

- Industrial power supplies
- Choppers
- Forklifts
- Battery chargers
- SMPS (switch mode power supplies)
- Synchronous rectification
- Temperature controls
- Welding
- UPS
- Motor drives
- Solid-state laser power supplies

Benefits

- Easy to use and run in parallel
- Low profile package
- Low thermal resistance: allows operation at higher case temperatures while maintaining the operating junction temperature within safe limits
- Enhanced body diode for high dV/dt and high di/dt
- Avalanche rugged
- Easy to drive

Features

- Electrically isolated baseplate
- Wide range of current (40 A to 435 A)
- Voltage up to 500 V
- New generation provides lower thermal resistance
- Low $Q_g / R_{DS(on)}$ FOM helps reduce switching losses
- Fully characterized capacitance and avalanche SOA
- Low capacitance
- UL and RoHS compliant (completely lead (Pb)-free)



Part Number	Circuit	V_{DSS}	I_D at T_c		$R_{DS(on)}$ ($V_{GS} = 10\text{ V}$)	Q_g ($V_{GS} = 10\text{ V}$)	Notes
		(V)	(A)	(°C)	mΩ	nC	
VS-FC420SA10	Single Switch	100	435	25	1.3	375	New Release ThunderFET Power MOSFET
VS-FC420SA15	Single Switch	150	400	25	1.93	250	
VS-FC270SA20	Single Switch	200	287	25	3.3	250	
VS-FA40SA50LC	Single Switch	500	40	25	106	280	

Samples available for all products