



# Power MOSFET Modules in SOT-227 Package

## High-Efficiency Modules for Low-Voltage Power Conversion

Configured as single switches and choppers, 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	$V_{CES}$	$I_c$ at $T_c$		$R_{DS(on)}$ ( $V_{GS} = 10 V$ )	$Q_g$ ( $V_{GS} = 10 V$ )	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-FC80NA20	High Side Chopper	200	108	25	9.6	161	
VS-FA40SA50LC	Single Switch	500	40	25	106	280	
VS-FA72SA50LC	Single Switch	500	72	25	61.5	225	

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