

60, 80 and 100 V STripFET™ F7 MOSFETs



STripFET™ F7 is ST's latest leading-edge technology, with a new trench-gate structure setting a new record in on-state resistance.

ST's new STripFET F7 MOSFETs deliver among the best on resistance currently available at 60 V, 80 V and 100 V devices, coupled with minimal capacitances and gate charge. The resulting devices help to simplify final designs and reduce equipment size and cost by allowing system power and efficiency targets to be met using fewer devices in small package sizes.

APPLICATIONS

- Telecom
- Computing systems
- Solar inverter
- Industrial automation
- Automotive applications

KEY FEATURES

- Extremely low $R_{DS(on)}$
- Minimal $R_{DS(on)} \times Q_g$
- Low input capacitances
- High avalanche ruggedness



STL220N6F7

Among the best in class on-state resistance (1.2 mOhm typ) in a PowerFLAT™ 5x6 package.

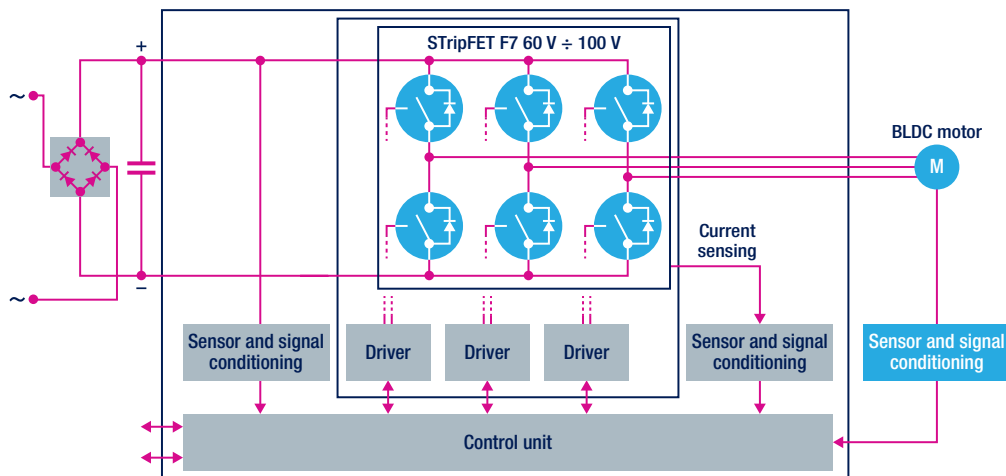
MOSFET SELECTION GUIDELINES

- Best trade off On-resistance/thermal resistance based on voltage class
- High current capability
- Low thermal resistance packages

FORK LIFT APPLICATION



BLOCK DIAGRAM



PRODUCT SELECTOR

VDSS	Part number	Marketing status	Package	$R_{DS(on)}$ (@VGS = 10 V) max (Ω)	Qg typ (nC)
100	STX310N10F7	Active	T0-220/H ² PAK-2/H ² PAK-6	0.0023	180
	STX150N10F7	Active	T0-220/T0-220FP/H ² PAK-2/I ² PAK	0.0039	117
	STL110N10F7	Active	PowerFLAT™ 5x6	0.006	72
	STX100N10F7	Active	T0220/D ² PAK/DPAK/T0-220FP	0.008	61
	STL90N10F7	Active	PowerFLAT™ 5x6	0.0085	42
	STX80N10F7	Active	DPAK/T0-220FP	0.0095	42
	STL8N10F7	Active	PowerFLAT™ 3.3x3.3	0.02	22
80	STX270N8F7	Active	T0-220/H ² PAK-2/H ² PAK-6	0.0021	193
	STX170N8F7	Active	T0-220/H ² PAK-2	0.0037	120
	STX140N8F7	Active	T0-220/T0-220FP/H ² PAK-2	0.004	96
	STL130N8F7	Active	PowerFLAT™ 5x6	0.0036	96
60	STL220N6F7	Active	PowerFLAT™ 5x6	0.0014	100
	STP220N6F7	Active	T0-220	0.0021	100
	STL140N6F7	Active	PowerFLAT™ 5x6	0.0028	55
	STX140N6F7	Active	T0-220/H ² PAK	0.0032	55
	STL130N6F7	Active	PowerFLAT™ 5x6	0.0035	42
	STX130N6F7	Active	T0-220/D ² PAK/DPAK	0.0047	42

For a complete STripFET™ F7 product portfolio visit www.st.com/stripfet7 or consult the APP ST-MOSFET-Finder



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