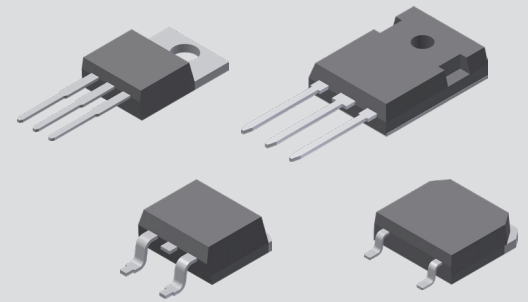




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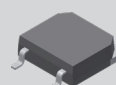
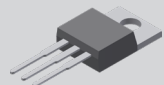
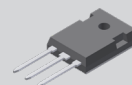
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## 200V Ultrajunction X4-family Products

### The Low $R_{DS(on)}$ MOSFETs for High Efficiency Application

Littelfuse 200V Ultra Junction X4-Class MOSFETs are available with 60A-220A nominal current ratings in TO-220, TO-247-3L, TO-263 and TO-268HV packages. These Power MOSFETs feature significantly reduced channel resistance  $R_{DS(on)}$ , improving the figure of merit (FOM)  $R_{DS(on)} \times Q_g$  compared to its predecessor X3-Class. These benefits enable designers to achieve higher efficiency using simplified thermal design.

$R_{DS(on)max}$ [mΩ]	$I_{D25}$ [A]	TO-263 	TO-268 HV 	TO-220 	TO-247 
21	60	IXTA60N20X4		IXTP60N20X4	IXTH60N20X4
13	86	IXTA86N20X4		IXTP86N20X4	
10.6	94	IXTA94N20X4		IXTP94N20X4	IXTH94N20X4
9.5	120			IXTP120N20X4	IXTH120N20X4
5.5	220		IXTT220N20X4HV		IXTH220N20X4

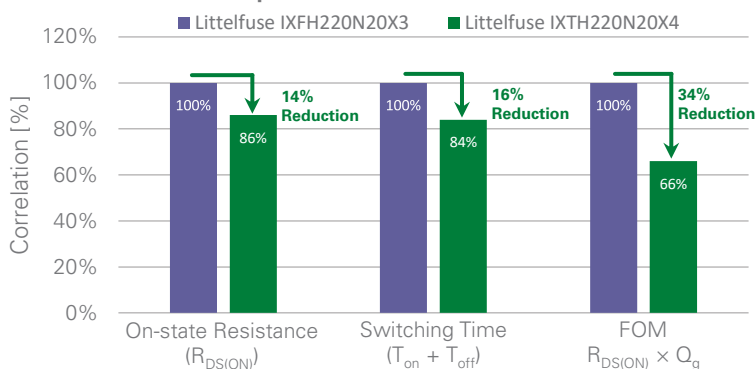
### Applications

- Switched-Mode Power Supplies with low input voltage for telecom and server applications
- Battery circuits in forklifts, golf carts
- DC-DC converters with low input voltage
- Motor control
- Small Uninterrupted Power Supply for residential applications

### Benefits

- Low static losses due to low on-state resistance  $R_{DS(ON)}$
- Simplified thermal design due to low thermal resistance  $R_{thJC}$
- High ruggedness against over-voltage due to high avalanche energy capability  $E_{AS}$
- Low gate drive power demand due to reduced gate charge  $Q_g$

200V Device Comparison – LFus 200V X3 vs. LFus 200V X4



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