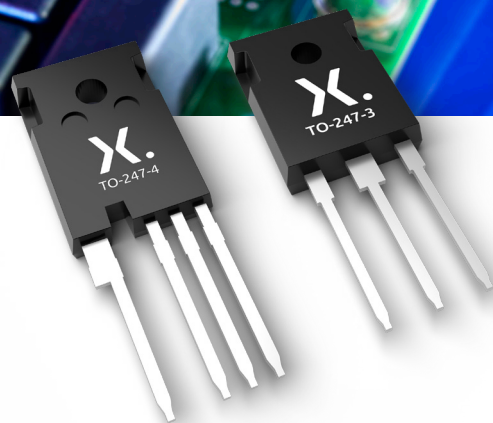


For safe, robust and reliable power switching

# Silicon Carbide MOSFETs

Addressing the growing demand for high-power and high-voltage industrial applications, Nexperia's Silicon Carbide MOSFETs, with their excellent  $R_{Dson}$  temperature stability, fast switching speed, and high short-circuit ruggedness, make them the product of choice for E-vehicle charging infrastructure, photovoltaic inverters, and motor drives.



## Design Benefits

- › Very low switching losses
- › Fast reverse recovery
- › Fast switching speed
- › Temperature independent turn-off switching losses
- › Very fast and robust intrinsic body diode

## Key technical features

- › Best-in-class  $R_{Dson}$  temperature dependency
- › Superior gate charge and beneficial gate charge ratio
  - Low power consumption of gate drivers
  - High tolerance against parasitic turn-on
- › Ultra small threshold voltage tolerance
- › Robust body diode with very low forward voltage
- › Lower leakage current up to 1200 V

## Key applications

- › E-vehicle charging infrastructure
- › Photovoltaic inverters
- › Switch mode power supply
- › Uninterruptable power supply
- › Motor drives





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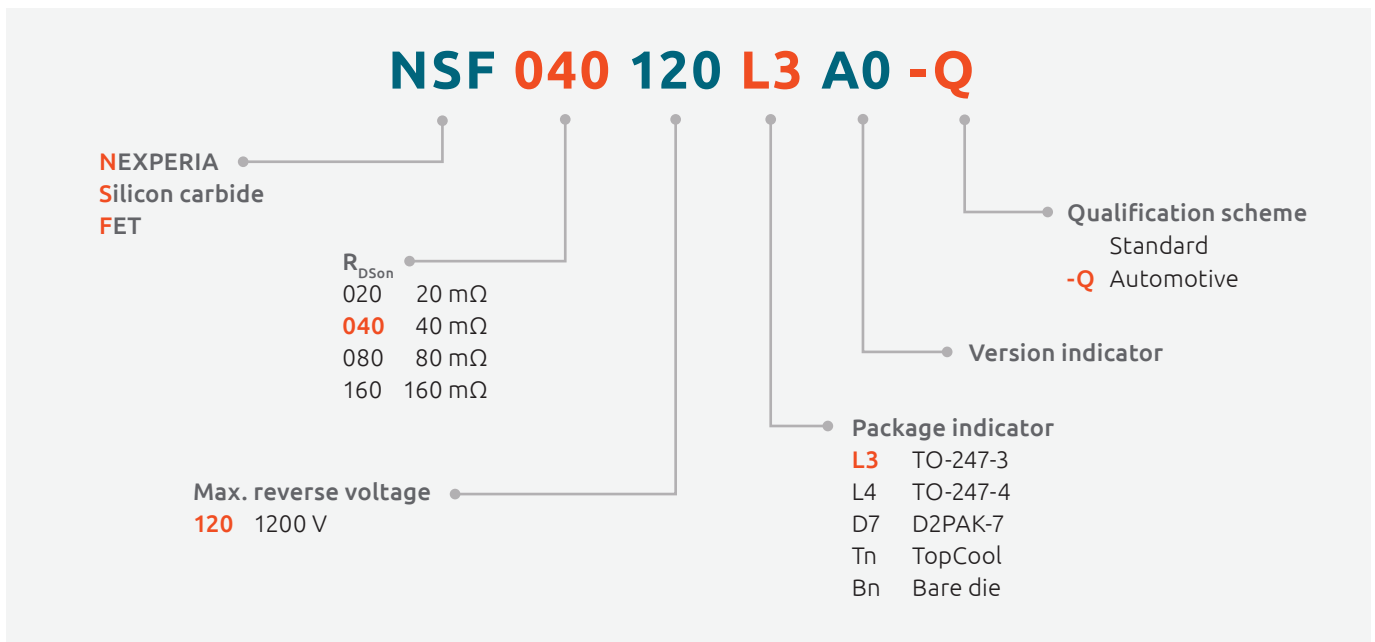
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EFFICIENCY WINS.

## Product range

Type name	Package	$V_{DS}$ max (V)	$R_{DSon}$ typ (m $\Omega$ ) @ $T_j = 25^\circ\text{C}$	$I_D$ max (A) @ $T_C = 25^\circ\text{C}$	$T_j$ max ( $^\circ\text{C}$ )
NSF040120L3A0	 TO-247-3	1200	40	65	175
NSF080120L3A0			80	35	
NSF040120L4A0	 TO-247-4		40	66	
NSF080120L4A0			80	36	

## SiC MOSFET | Nomenclature



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