

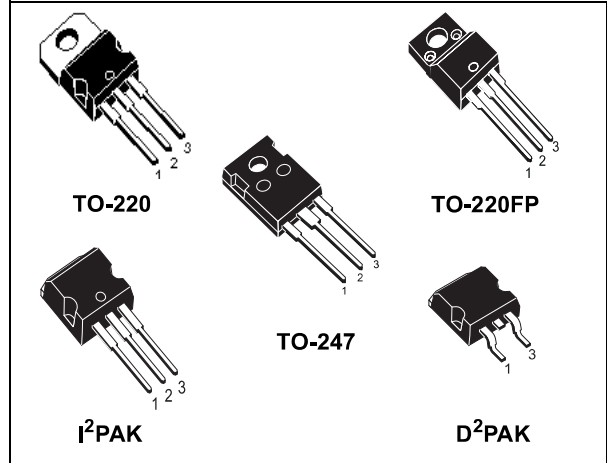


# STP14NK50Z, STP14NK50ZFP STB14NK50Z, STB14NK50Z-1, STW14NK50Z

N-CHANNEL 500V-0.34Ω-14A TO-220/FP/D<sup>2</sup>PAK/I<sup>2</sup>PAK/TO-247  
Zener-Protected SuperMESH™ Power MOSFET

TYPE	V <sub>DSS</sub>	R <sub>DS(on)</sub>	I <sub>D</sub>	P <sub>w</sub>
STP14NK50Z	500 V	< 0.38 Ω	14 A	150 W
STP14NK50ZFP	500 V	< 0.38 Ω	14 A	35 W
STB14NK50Z	500 V	< 0.38 Ω	14 A	150 W
STB14NK50Z-1	500 V	< 0.38 Ω	14 A	150 W
STW14NK50Z	500 V	< 0.38 Ω	14 A	150 W

- TYPICAL R<sub>DS(on)</sub> = 0.34 Ω
- EXTREMELY HIGH dv/dt CAPABILITY
- 100% AVALANCHE TESTED
- GATE CHARGE MINIMIZED
- VERY LOW INTRINSIC CAPACITANCES
- VERY GOOD MANUFACTURING REPEATABILITY



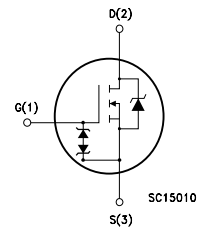
## DESCRIPTION

The SuperMESH™ series is obtained through an extreme optimization of ST's well established strip-based PowerMESH™ layout. In addition to pushing on-resistance significantly down, special care is taken to ensure a very good dv/dt capability for the most demanding applications. Such series complements ST full range of high voltage MOSFETs including revolutionary MDmesh™ products.

## APPLICATIONS

- HIGH CURRENT, HIGH SPEED SWITCHING
- IDEAL FOR OFF-LINE POWER SUPPLIES, ADAPTORS AND PFC
- LIGHTING

## INTERNAL SCHEMATIC DIAGRAM



## ORDERING INFORMATION

SALES TYPE	MARKING	PACKAGE	PACKAGING
STP14NK50Z	P14NK50Z	TO-220	TUBE
STP14NK50ZFP	P14NK50ZFP	TO-220FP	TUBE
STB14NK50ZT4	B14NK50Z	D <sup>2</sup> PAK	TAPE & REEL
STB14NK50Z-1	B14NK50Z	I <sup>2</sup> PAK	TUBE
STW14NK50Z	W14NK50Z	TO-247	TUBE