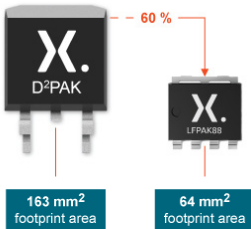


LFPAK88

Driving power-density to the next level

Providing a true alternative to D²PAK, Nexperia's LFPAK88 delivers industry leading power density in a truly innovative 8mm x 8mm footprint. Delivering 2x higher continuous current rating, ultimate thermal performance and reliability, and up to 60% space efficiency, making LFPAK88 the MOSFET of choice for the most challenging new designs. Available in both automotive AEC-Q101 and industrial grades.

Space saving footprint



D²PAK Vs LFPAK88

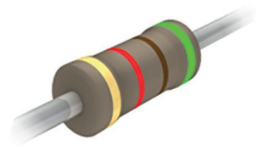
- › 60% footprint reduction
- › 65% height reduction
- › 86% overall space reduction

Reliable & Manufacturable

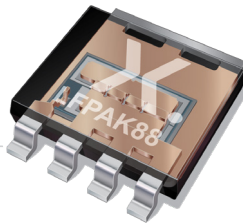


- › Advanced package design exceeds 2x AEC-Q101
- › Recommended for automotive applications such as power steering, ABS braking, DC/DC conversion and LED lighting

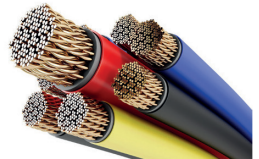
Ultra Low On-Resistance



- › Latest low voltage superjunction technology
- › 0.7 mΩ @ 40 V
- › Copper clip technology gives low electrical and thermal resistance
- › Low R_{DS(on)} without compromising SOA capability



High Current Rating



- › Up to 425 A continuous current rating
- › High transient robustness
- › 100% avalanche tested (310 Amps)
- › Best-in-class linear mode (SOA) performance for in-rush & surge protection

nexperia

EFFICIENCY WINS.

AEC-Q101 LPAK88 Portfolio

Type number	V_{DS} max (V)	$R_{DS(on)}$ max @ 10 V (m Ω)	I_D max @ 25 °C (A)	$R_{th(j-mb)}$ typ (K/W)
BUK750R7-40H	40	0.7	425	0.25
BUK750R9-40H	40	0.9	375	0.28
BUK751R0-40H	40	1.0	325	0.39

Industrial LPAK88 Portfolio

Type number	V_{DS} max (V)	$R_{DS(on)}$ max @ 10 V (m Ω)	I_D max @ 25 °C (A)	$R_{th(j-mb)}$ typ (K/W)
PSMNR70-40SSH	40	0.7	425	0.25
PSMNR90-40SSH	40	0.9	375	0.28
PSMN1R0-40SSH	40	1.0	325	0.32

Compact footprint

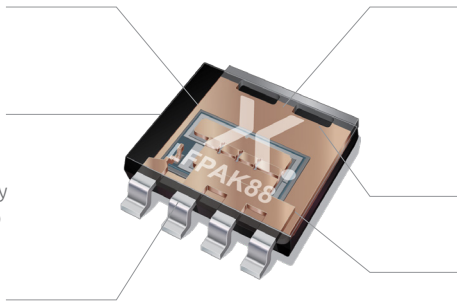
- › D²PAK replacement
- › Low profile

Manufacturability & robustness

- › Flexible leads for temp cycling reliability
- › Compatible with SMD soldering and AOI

High performance silicon

- › 0.7 m Ω Trench 9 40 V
- › Improved SOA



Copper clip

- › Tested high I_D max rating (425 A)
- › Low inductance (1 nH)
- › Current spreading
- › Low $R_{DS(on)}$

Low thermal resistance

- › Low $R_{th(j-mb)}$ typ (0.25 K/W)

Qualification

- › AEC-Q101
- › 175 °C rating
- › MSL1
- › Halogen free

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