

New Product Introduction
OptiMOS™ 5 80 V & 100 V in mTOLG

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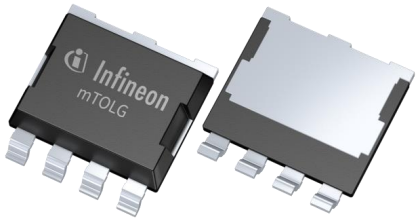
public

OptiMOS™ 5 80 & 100 V in mTOLG

Package Description

mTOLG (HSOG-4)

L x W x H 8.0 x 8.0 x 1.6 mm³
I_{Dmax} (DC current) at Tj=25 °C: 300A
Cu-Clip soldered
Latest product family in production: **OptiMOS™ 5 80 V with BiC: 1.2mΩ** **OptiMOS™ 5 100 V with BiC: 1.6mΩ**

Application Examples



Key features	Key benefits
– Gullwing shaped leads – Compatible with other 8x8mm² packages – Leading edge $R_{DS(on)}$ – Fast switching times (turn on/off) – Extended qualification beyond AEC-Q101	– Enhanced temperature cycling results – Recommended for metal substrate PCBs – Minimized conduction losses – Excellent switching performance – High power density – Option to use second source of 8x8mm²

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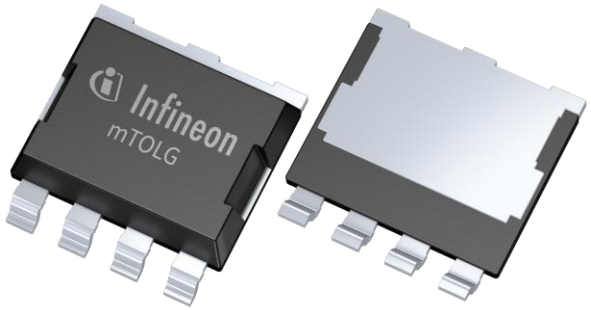
OptiMOS™ 5 80 & 100 V in mTOLG

New Product Introduction

- Infineon introduces OptiMOS™ 7 80 & 100 V automotive MOSFETs in its new mTOLG 8x8 mm^2 surface mount package. These MOSFETs are designed specifically for the high performance, high quality and robustness needed for demanding automotive applications.
- mTOLG package MOSFETs are recommended for aluminum (Al) based IMS substrates because of their enhanced temperature cycling (TCoB) performance.
- Featuring gullwing-shaped leads, they handle mechanical stress well during thermal cycling. This is especially beneficial to customers using AI based IMS boards which bend more as temperature changes.
- The mTOLG package also uses copper clip interconnect technology, which brings advantages for thermal performance, continuous current capability, on-resistance and package inductance. The leads of the mTOLG package are also compatible with automatic optical inspection (AOI) after soldering.

mTOLG 8x8 mm^2



Product Name	Orderable Part Number (OPN)	V_{DS} [V]	$R_{DS(on)}$ max at V_{GS} 10V [mΩ]	Q_G typ. [nC]	R_{thJC} max. [K/W]	FOM [mΩ*nC]	I_D max. at 25°C [A]
IAUMN08S5N012G	IAUMN08S5N012GAUMA1	80	1.2	149	0.46	178.8	300
IAUMN08S5N013G	IAUMN08S5N013GAUMA1	80	1.3	138	0.49	179.4	250
IAUMN10S5N016G	IAUMN10S5N016GAUMA1	100	1.6	142	0.46	227.2	220
IAUMN10S5N017G	IAUMN10S5N017GAUMA1	100	1.7	131	0.49	222.7	200

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