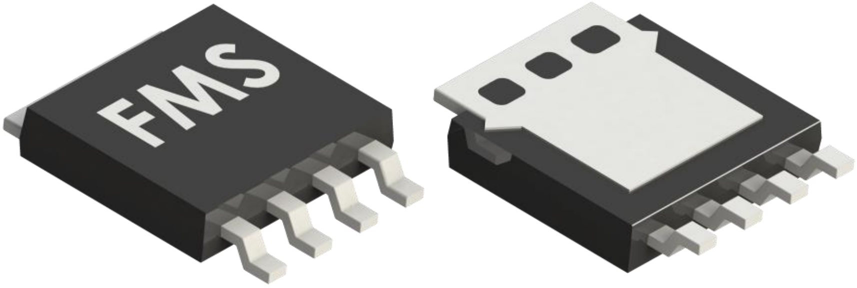
LFPAK 5X6 導引手冊



FMS P/N : FMOSUD200N08-H
FMS P/N : FMOSUD287N03-H

Formosa Microsemi CO.,LTD.

LFPAK 封裝導引手冊

- ●品質至上
- ●服務優先
- ●顧客滿意
- ●持續改善

成立時間： 1996 年 7月

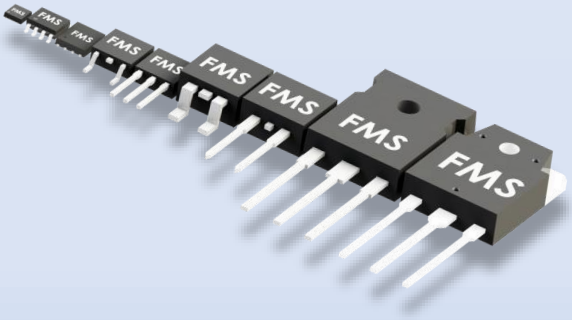
營運中心： 臺北,臺灣

主力研發： 功率/保護/整流/低功耗/快速切換/低導通

生產產品： **M**OSFETs/**E**SD/**T**VS/**D**iode/**Z**ener

實施品質認證，創造顧客滿意

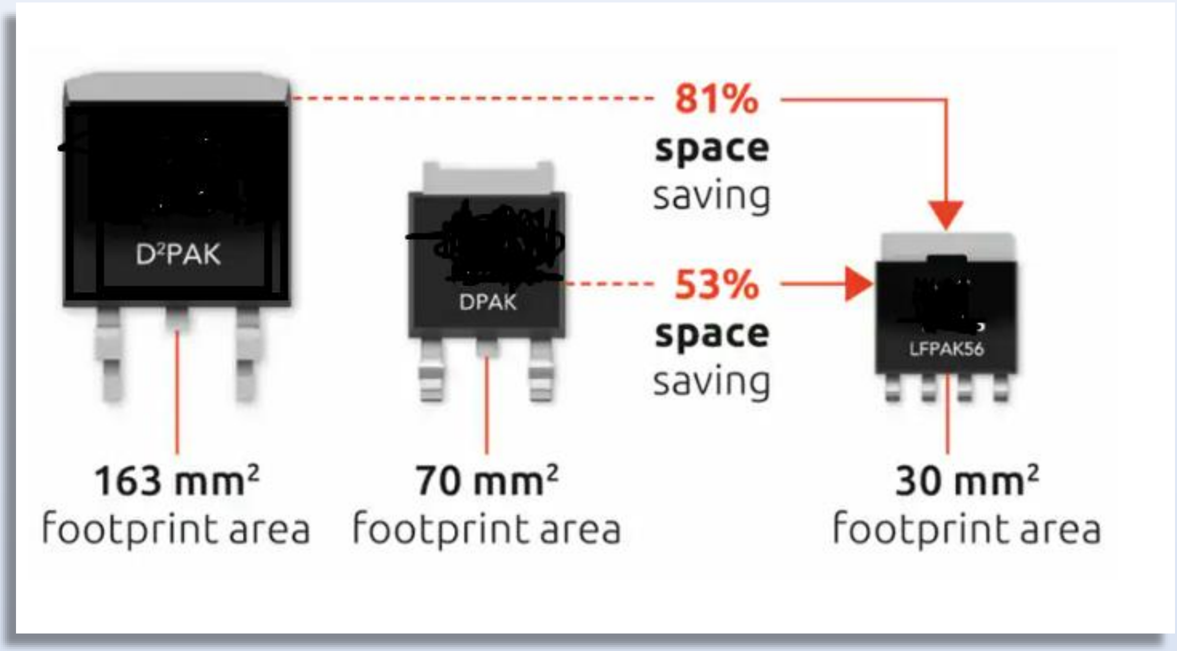
ISO 9001 Ceritifiaction:
AEC-Q101
IATF 16949 PASS
ISO 14001 PASS



LFPAK為設計師帶來的好處，其設計和結構經過優化，可提供最佳的熱和電氣性能，成本和可靠性。 它現在被公認為事實上的標準功率SO8封裝。

Features

1. LV/MV MOSFET in a Power-SO8 footprint with less than 1 mΩ RDS(ON)
2. One of the only Power-SO8 devices rated to 175°C
3. Qualified to AEC-Q101 Standards for High Reliability
4. The LFPAK is rated for ID(MAX) up to 100 A
5. Improved mechanical and thermal characteristics
6. LFPAK provides maximum power density in a Power SO8 package

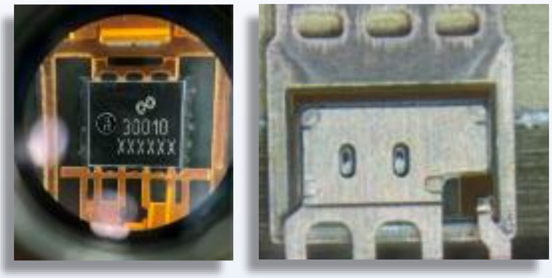


LFPAK MOSFET的技術精進

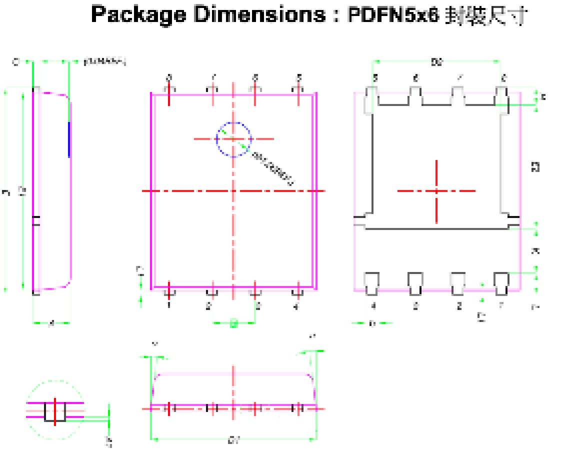
同樣的面積下優化內阻及散熱係數

PDFN5*6

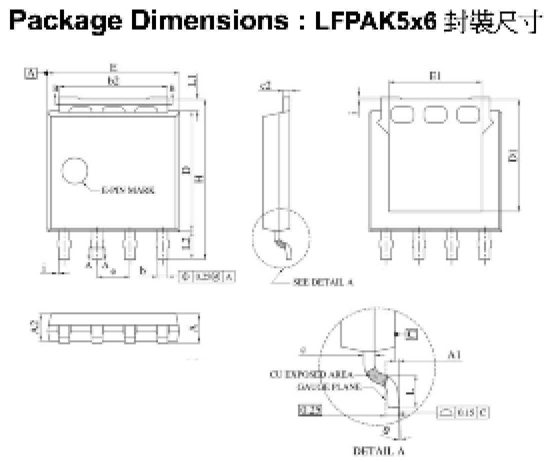
V.S.



LFPAK5*6



Package Dimensions : PDFN5x6 封裝尺寸

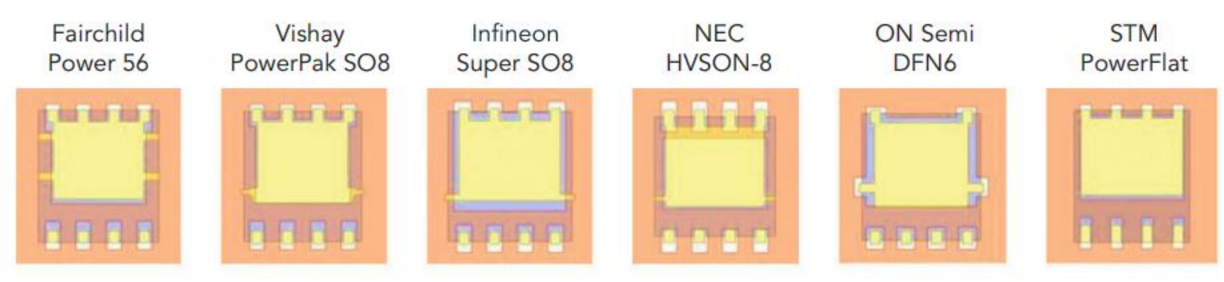


Package Dimensions : LFPAK5x6 封裝尺寸

- The same pin out & compatible footprint design between LFPAK5*6 and PDFN5*6, also compatible with other vendor’s Power-SO8;
- Excellent Copper clip package provide low thermal resistance, low Rdson and high ID max current up to 200A;
- Flexible 2 option for customer to choose depends on design and application request.
- LFPAK5*6 pin out design is good with SMT reflow soldering, good contact and high reliability for HPC, Server, Power, Automotive

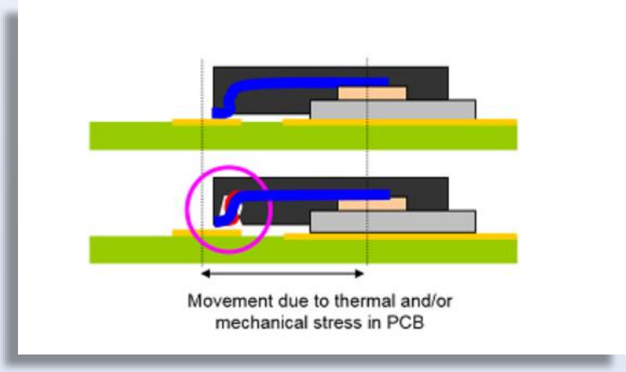
LFPAK MOSFET的包裝優勢

LFPAK 集合 SOP8 腳 + TO252 (散熱片設計)之好處，且相容於各國際大廠PDFN56腳位

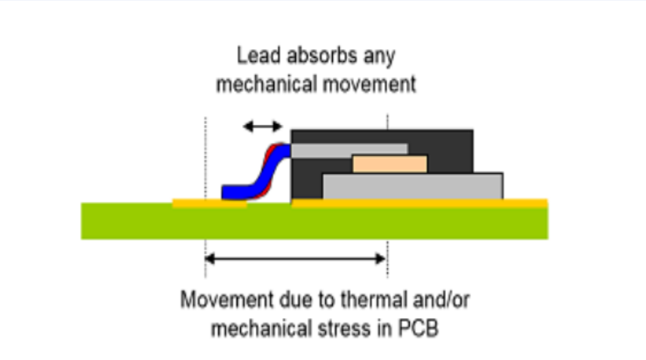


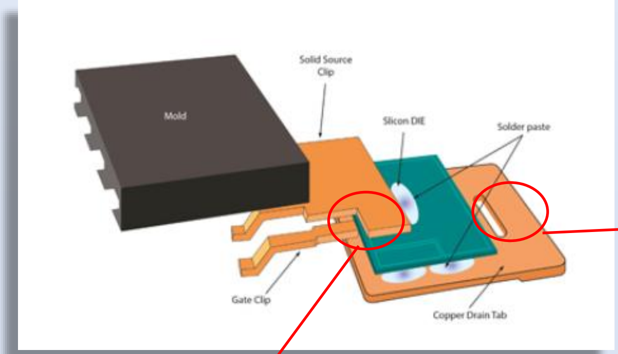
腳位容易沾錫，可接受更大得冷熱應力不會剝落，更可滿足 Automotive qualification (AEC-Q101)

傳統PDFN56



LFPAK



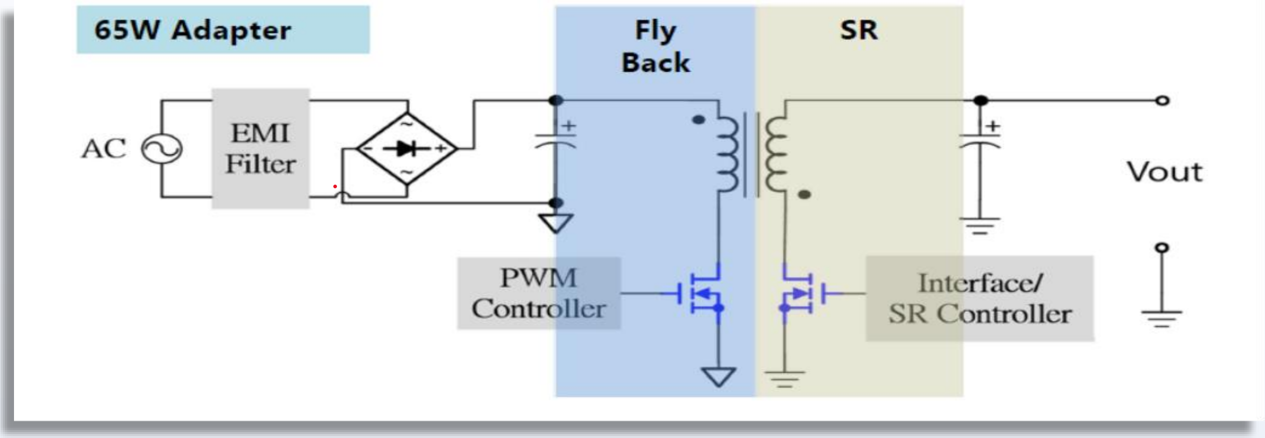


散熱片孔洞設計，容易沾錫爬錫

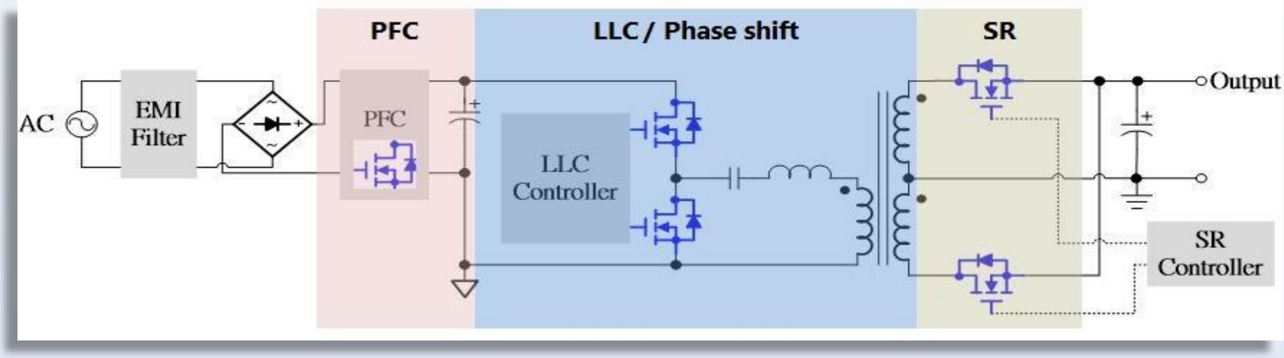
Clip = Lead
一體成形，封裝過程晶片不易滑動

LFPAK 封裝主要應用市場 (SR 同步整流)

Adaptor 同步整流



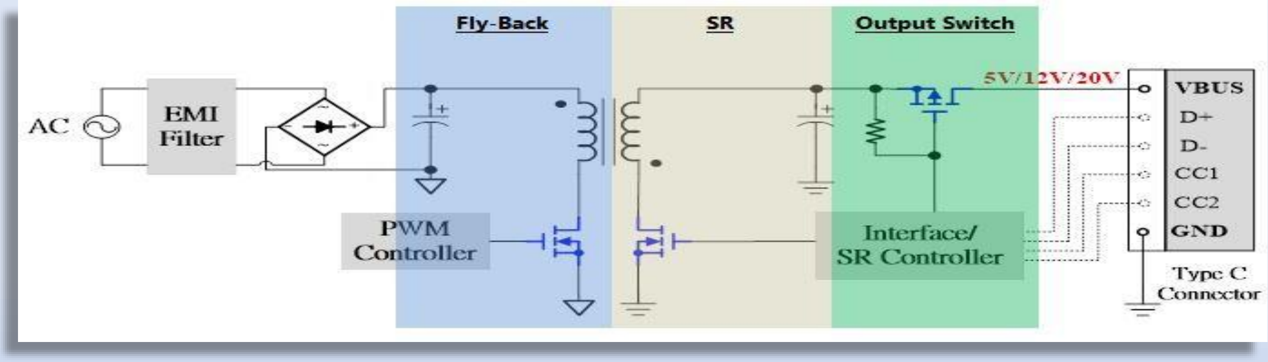
High Power SMPS 同步整流



Features:

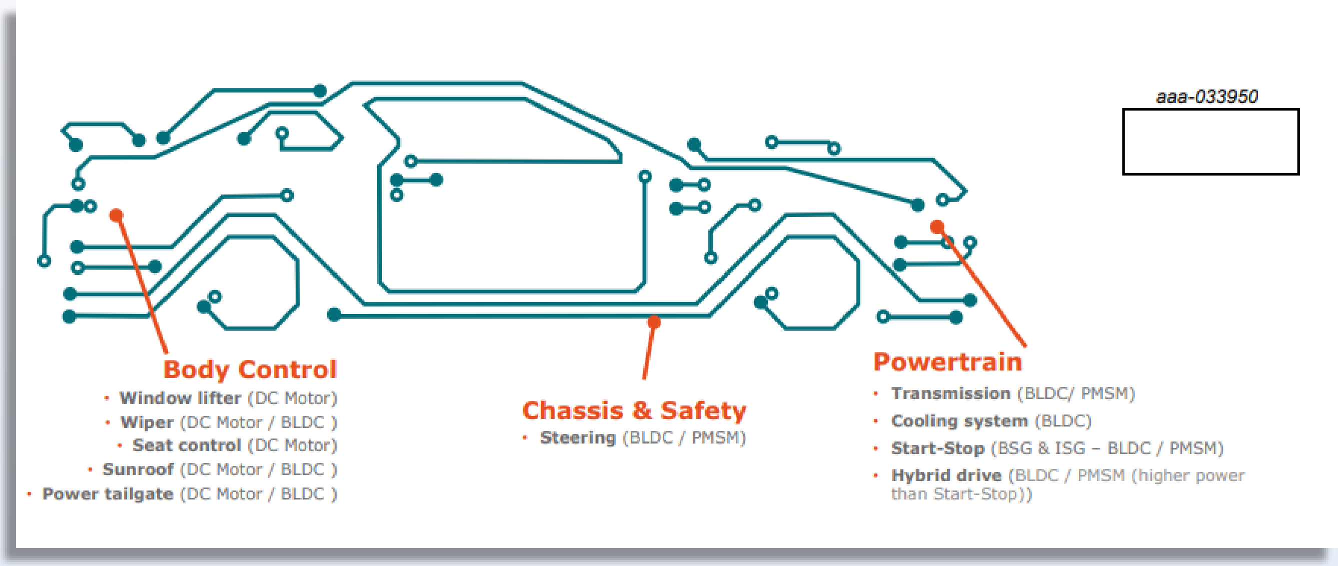
- Lowest $R_{DS(ON)}$
- Ultra low Q_{GD}

PD Charger



LFPAK 封裝主要車用市場 (煞車、助力轉向、反向電池保護和 DC-DC 轉換器)

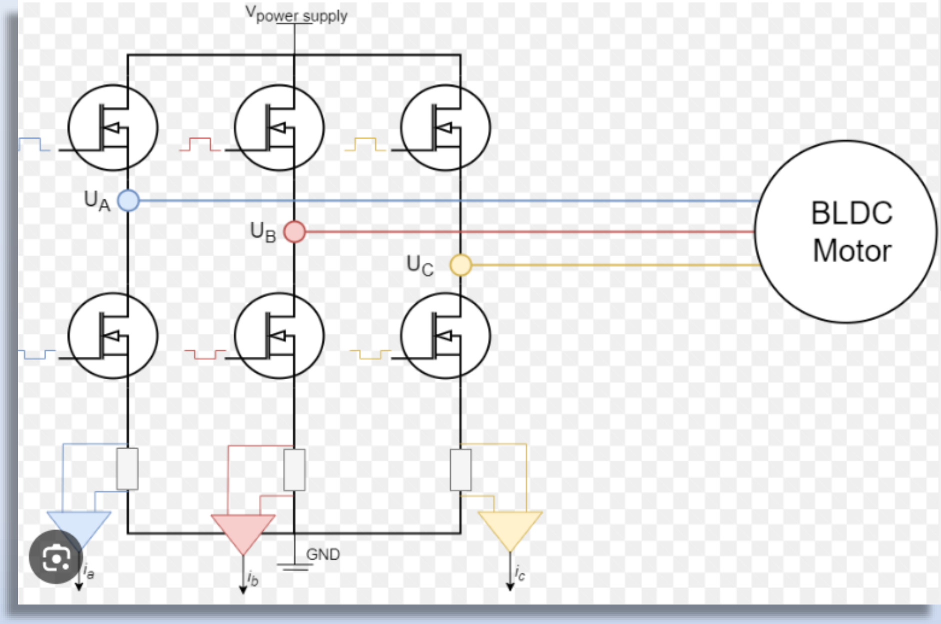
車子應用區塊示意圖



車用 BMS 系統

LFPAK 封裝主要應用市場 (BLDC)

無刷馬達相關應用產品



美麗微 LFPAK 封裝產品

30/80V LFPAK RDSon 領先業界競爭對手規格

FMS P/N	規格																					
	ESD	BVDSS	ID	PD	EAS (mJ)	IDSS		IGSS		VGS(th)			RDSON1(Ω)				RDSON2(Ω)				Ciss Typ.(pF)	Qg Typ.(nC)
		(V)	(A)	(W)		VDSS (V)	(uA)	VGS (V)	(uA)	MIN (V)	MAX (V)	ID (mA)	Typ.	Max.	VGS (V)	ID (A)	Typ.	Max.	VGS (V)	ID (A)		
FMOSUD200N08-H	N/A	80	200	188	162	64	1	±20	±0.1	2.3	3.7	0.25	2.0m	2.5m	10	20	3.3m	4.3m	6	10	5103	82
FMOSUD287N03-H	N/A	30	287	104	205	24	1	±10	±0.1	1.0	2.0	0.25	0.77	0.87	10	20	1.05	1.35	4.5	15	6545	175.7

採用 LFPAK/Power-SO8 封裝，縮減一半的佔用面積全力驅動您的設計採用 LFPAK56 (Power-SO8) 封裝的高功率雙極電晶體，提供類似 DPAK 的散熱和電氣性能，且佔用面積只有一半。通過 AEC-Q101 認證並支援高溫運作 (175 °C)，帶來可靠又節能的性能。