

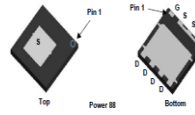
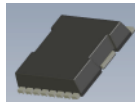
JUNE 3, 2015

ADDITIONS TO REGISTER-ABLE PRODUCTS LIST



MOTION CONTROL SPM MODULES

BEST IN CLASS N- CHANNEL POWER TRENCH FETS
TOLL, PQFN88, + Power56, Power 33, Extended Temp



MOBILE DEVICES

USB SWITCHING CHARGER AND A AUDIO SWITCH

JUNE 2015 ADDITIONS TO FOCUS / REGISTERABLE PRODUCT LIST

	Prod ID	Product Description
USB	FAN54020UCX	USB-Compliant 1.5 A Single-Cell Li-Ion Switching Charger w/ DBP and OTG Boost Order Samples Download Datasheet
Audio Switch	FSA2275UMX	DPDT (0.5Ω) HiFi Audio Switch with Negative Swing Order Samples Download Datasheet
Motion Control Modules	FNA25060	600 V Motion SPM® 2 Series 600 V - 50 A 3-Phase IGBT Inverter Module, Including Control ICs for Gate Drive and Protections Order Samples Download Datasheet Use Design Tool
	FNB40560B2	Motion SPM® 45 Series Module, 600 V - 5A 3-Phase IGBT Inverter Module with Integral Gate Drivers and Protection Order Samples Download Datasheet Use Design Tool
N Channel Power Trench FET's	FDB86563_F085	N-Channel PowerTrench® MOSFET 60 V, 110 A, 1.8 mΩ, D2Pak Order Samples Download Datasheet
	FDBL86363_F085	N-Channel PowerTrench® MOSFET 80 V, 240 A, 2.0 mΩ, MO299 TO-LL Order Samples Download Datasheet
	FDBL86366_F085	N-Channel PowerTrench® MOSFET 80 V, 220 A, 3.0 mΩ, MO299 TO-LL Order Samples Download Datasheet
	FDMS86368_F085	N-Channel PowerTrench® MOSFET 80 V, 80 A, 4.5 mΩ, PQFN 5 x 6 8Lead Order Samples Download Datasheet
	FDMS86369_F085	N-Channel PowerTrench® MOSFET 80 V, 65 A, 7.5 mΩ, PQFN 5 x 6 8Lead Order Samples Download Datasheet
	FDMC86262P	N-Channel PowerTrench® MOSFET 80 V, 65 A, 7.5 mΩ, MLP 3.3 x 3.3 Order Samples Download Datasheet
	FDMT800100DC	N-Channel PowerTrench® MOSFET 60 V, 110 A, 1.8 mΩ, Power 88 Dual Cool Order Samples Download Datasheet
	FDMT800150DC	N-Channel PowerTrench® MOSFET 60 V, 110 A, 1.8 mΩ, Power 88 Dual Cool Order Samples Download Datasheet
	FDMT800152DC	N-Channel PowerTrench® MOSFET 60 V, 110 A, 1.8 mΩ, Power 88 Dual Cool Order Samples Download Datasheet
	FDN86501LZ	N-Channel PowerTrench® MOSFET 60 V, 110 A, 1.8 mΩ, Super SOT3 built in ESD Order Samples Download Datasheet
N Channel 650V FredFET	FCB110N65F	N-Channel SuperFET® II MOSFET FRFET 650V 110mohm D2-Pak Order Samples Download Datasheet



TO-Leadless (TO-LL) package JEDEC MO-299).

Integrates Fairchild’s PowerTrench MOSFET technologies with the

current carrying and thermal

advantages of the TO-Leadless package to offer power switches with the industry’s lowest on-resistance.

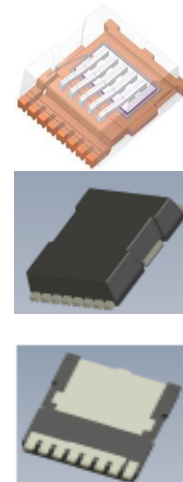
This combination gives designers a package that is about 30 percent smaller compared to a D2PAK (TO263) package and supports up to 300A current handling capabilities. The TOLL is almost half the height, which makes it ideal for many automotive applications where space is usually tight.

[Click here to see Available TO-LL Products](#)

Key Features and Benefits

- Very high current capability up to 300A - D2PAK 7L is limited to 180A
- Smaller footprint than D2PAK 9.8x11.7 mm vs 10.2x15.2 mm → 30% less board space & half in height
- Very low package resistance → 40% lower Thermal Resistance (0.35 to 0.5 C/W)
- Low package inductance ~50% less parasitic inductance compared to D2PAK → improved EMI, simplifies board-design
- Large source pin Low resistance contact to board , further dissipation and reliability advantage (less electro- migration at high temperature / high current)
- Highest reliability Passed 6000 Thermal Cycles (6x AEC-Q101 requirement)

Max Vds	Part Number	Max Rds [mOhm]	Max Idd [A]	Rth jc [°C/W]
40 V	FDBL9401_Fo85	0.65	300	0.35
	FDBL9403_Fo85	0.9	240	0.42
	FDBL9406_Fo85	1.2	240	0.50
60 V	FDBL86561_Fo85	1.1	300	0.35
	FDBL86563_Fo85	1.5	240	0.42
	FDBL86566_Fo85	~ 2.5	240	0.50
80 V	FDBL86361_Fo85	1.4	300	0.35
	FDBL86363_Fo85	2.1	240	0.42
	FDBL86366_Fo85	3.3	210*	0.50
100 V	FDBL86061_Fo85	~ 2.0	293 *	0.35
	FDBL86063_Fo85	~ 2.6	225 *	0.42
	FDBL86063_Fo85	~ 4.5	160 *	0.50
150 V	FDBL86210_Fo85	6.3	169 *	0.35



- Note the “TO-LL” Leadless package is also known as “H-PSOF 8L” package or “MO299”.

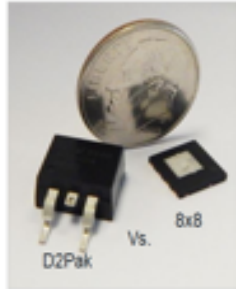


Dual Cool™ packaging technology, provides both bottom and top-side cooling in a PQFN package.

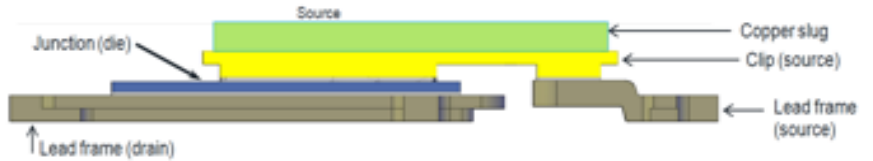
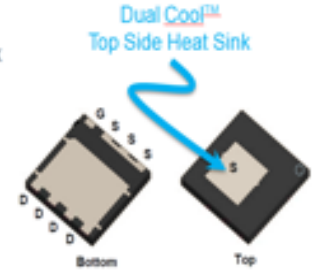
Not only is the PQFN footprint an industry standard, it provides the designer with performance flexibility.

With enhanced dual path thermal performance and improved parasitics over its wire-bonded predecessors, the use of a heat sink with Dual Cool Dual Cool package technology Delivers higher output current and increased power density. Fairchild offers Dual Cool package solutions in 3.3mm x 3.3mm and 5mm x 6mm and 8 mm x 8mm PQFN packages.

Dual Cool™ PowerPak 8x8



- D2Pak Replacement**
- ✓ 78% thinner @ 0.95 mm max
 - ✓ 53% less area @ 8x8mm
 - ✓ Top side heat sink option
 - ✓ Improved Thermals
 - ✓ Higher Current Ratings
 - ✓ Lower Package Parasitics



[Click Here to See Avail Dual Cool Products](#)

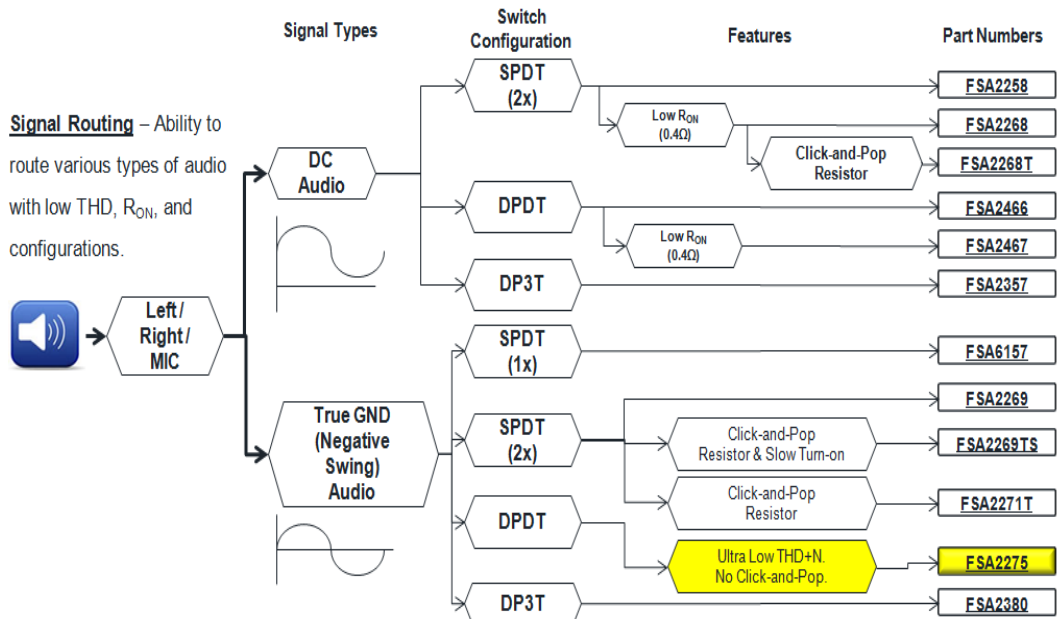
FSA2275 Best in Class HiFi Audio Switch

Focus on Mobile and Audio with low Icc and best THD

<https://www.fairchildsemi.com/datasheets/FS/FSA2275.pdf>

[Order Samples](#) [Download Datasheet](#)

- FSA2275 shows superior performance
- THD+N is below -110dB over 10Hz~100KHz frequency range, with light and heavy loading
- Current consumption is 7uA, much lower than competitors
- FSA2275 has strong immunity to power noise, eg. 300mVpp, 217Hz square wave on power line has negligible impact to THD+N



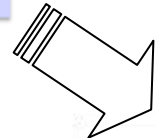
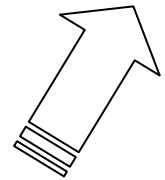
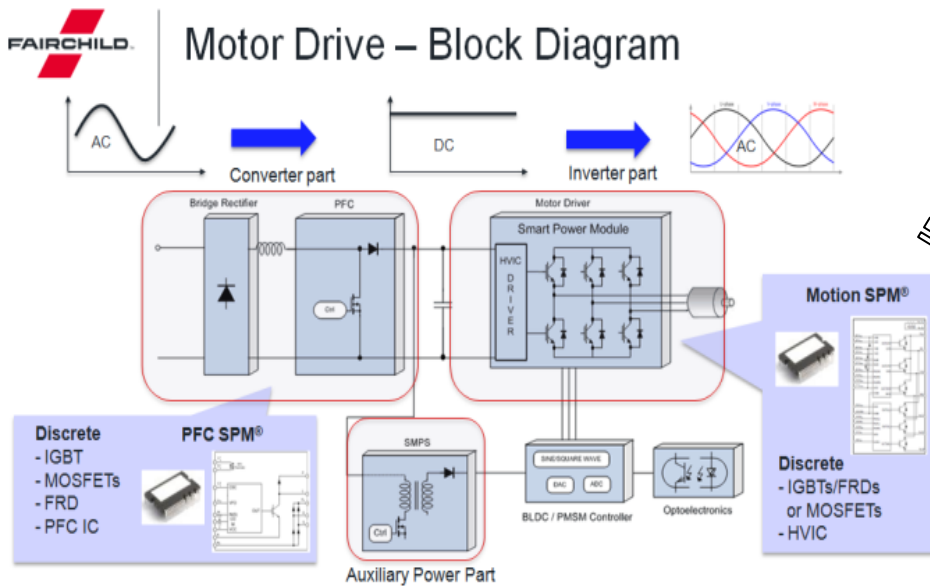


SPM Motion Control Modules

FNB40560 / FNB40560B2 is a 600 V - 5A 3-Phase IGBT Inverter Module with Integral Gate Drivers and Protection. The SPM® 45 family of modules providing a fully-featured, high-performance inverter output stage for AC Induction, BLDC, and PMSM motors. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts, over-current shutdown, thermal monitoring, and fault reporting. The built-in, high speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required to properly drive the module's robust short-circuit-rated IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

<http://www.fairchildsemi.com/datasheets/FN/FNB40560B2.pdf>

[Order Samples](#) [Download Datasheet](#) [Use Design Tool](#)



FNA25060 is a Motion SPM® 2 Series Module. 600 V - 50 A 3-Phase IGBT Inverter Module, Including Control ICs for Gate Drive and Protections.

Key Features include :

- Very Low Thermal Resistance Using Al₂O₃ DBC Substrate
- Built-In Bootstrap Diodes and Dedicated Vs Pins Simplify PCB Layout
- Separate Open-Emitter Pins from Low-Side IGBTs for Three-Phase Current Sensing
- Single-Grounded Power Supply Supported
- Built-In NTC Thermistor for Temperature Monitoring and Management
- Adjustable Over-Current Protection via Integrated Sense-IGBTs
- Isolation Rating of 2500 Vrms / 1 min.



<http://www.fairchildsemi.com/datasheets/FN/FNA25060.pdf>

[Use Design Tool](#) [Download Datasheet](#) [Order Samples](#)