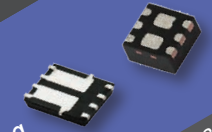




P-Channel Gen III MOSFETs

**Thermally Enhanced,
Integrated, Space-Saving
Solutions**

DUAL P-CHANNELS



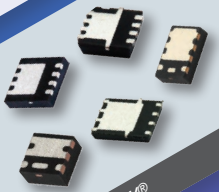
**Best $R_{DS(on)}$
per Outline Areas**

MICRO FOOT®



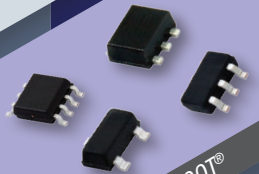
**Thermally Enhanced,
High Current
Handling Capability**

PowerPAK®



**Wide Range of
Battery Operated
Applications**

LITTLE FOOT®




P-CHANNEL GEN III MOSFETs

Focus Products

SINGLE P-CHANNEL MOSFETs, -12 V to -40 V

Vishay's industry-leading p-channel products enable the most efficient use of battery power. Several devices feature leadership $R_{DS(on)}$ to minimize power loss and are available in an advanced array of compact and low profile packages. The MICRO FOOT® family utilizes an optimized die-to-package ratio to minimize $R_{DS(on)}$ of a given device footprint. Selected products offers application-specific features, such as built-in ESD protection and 1.2 V and 1.5 V rated devices operating in low gate-to-source voltage bias conditions.

V_{DS} (V)		Approx. Outline (mm x mm)	-12	-20	-30	-40
PowerPAK®	SO-8	5 x 6 		1.6 mΩ	2.6 mΩ	3.6 mΩ
	1212-8	3 x 3 		3.6 mΩ	4.6 mΩ	11.7 mΩ
	ChipFET®	3 x 1.9 	8.2 mΩ	9.6 mΩ	15 mΩ	
	SC-70	2 x 2 	13.5 mΩ	14.5 mΩ	18.5 mΩ	65 mΩ
	SC-75	1.6 x 1.6 	25.5 mΩ	35 mΩ		
	0806	0.8 x 0.6 		1250 mΩ		
LITTLE FOOT®	SO-8	5 x 6 			3.3 mΩ	
	TSOP-6	3 x 3 	17.5 mΩ	21 mΩ	19.2 mΩ	
	SOT-23	3 x 3 	28 mΩ	32 mΩ	45 mΩ	
	SC-70-6	2 x 2 	34 mΩ	41 mΩ	54 mΩ	
	SC-89-6	1.6 x 1.6 		78 mΩ	100 mΩ	
MICRO FOOT®	2.4 x 2	2.4 x 2 		8 mΩ		
	1.6 x 1.6	1.6 x 1.6 	19 mΩ	23 mΩ	31 mΩ	
	1.5 x 1	1.5 x 1 	26 mΩ	32 mΩ	53 mΩ	
	1 x 1	1 x 1 		44 mΩ		
	0.8 x 0.8	0.8 x 0.8 	80 mΩ	76 mΩ	128 mΩ	

Featured Products

Si7157DP: the lowest $R_{DS(on)}$ -20 V device; less than 1.6 mΩ

SiSS65DN: the lowest $R_{DS(on)}$ -30 V in 3 mm x 3 mm; less than 4.6 mΩ

SiA437DJ: the lowest $R_{DS(on)}$ -20 V in 2 mm x 2 mm; less than 14.5 mΩ

SiUD403ED: 0.8 mm x 0.6 mm footprint; one of the most compact -20 V device

Si8851EDB: 8 mΩ -20 V in MICRO FOOT® 2 mm x 2 mm

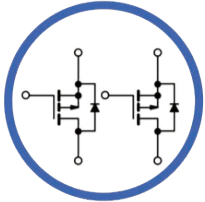


P-CHANNEL GEN III MOSFETs

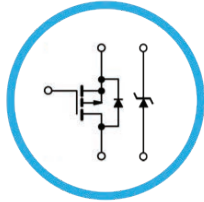
Focus Products

DUAL P-CHANNEL MOSFETs, -12 V to -40 V

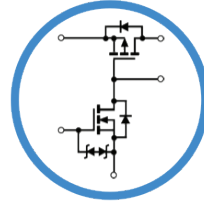
Vishay's dual p-channel devices reduce component count and enable more efficient use of battery power with their industry-low $R_{DS(on)}$. EDS protection is available on select devices.



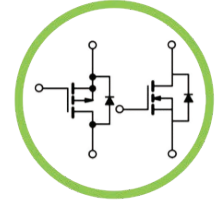
Dual P-Channel



P-Channel and Schottky



Level-Shift



P-Channel and N-Channel

Featured Products

PowerPAK® SO-8

- Si7997DP
-30 V, 5.5 mΩ



PowerPAK® SC-70

- SiA975DJ
-12 V, 41 mΩ
- SiA923EDJ
-20 V, 54 mΩ
- SiA923EDJ
-30 V, 64 mΩ



Featured Products

PowerPAK® SC-70

- SiA817EDJ
-30 V, 65 mΩ



Featured Products

TSOP-6

- Si3865DDV
-12 V, 54 mΩ



Featured Products

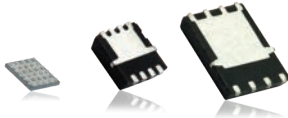
PowerPAK® SC-70

- SiA527DJ
-12 V, 29 mΩ and -12 V, 41 mΩ
- SiA537EDJ
-12 V, 28 mΩ and -20 V, 54 mΩ



Breakdown voltages: **-12 V to -40 V**
Industry's lowest $R_{DS(on)}$ in an
 array of advanced packages

- Minimize power loss and voltage drop



Part #	Si8851EDB	SiSA01DN	Si7155DP
V_{DS}	-20 V	-30 V	-40 V
$R_{DS(on)}$	< 8 mΩ	< 4.9 mΩ	< 3.6 mΩ
Footprint (mm)	2.4 x 2	3.3 x 3.3	6 x 5

Up to 31 A continuous drain current
 rating in **2 mm x 2 mm** package

PowerPAK® SC-70

2.05 mm x 2.05 mm x 0.75 mm



Part #	SiA467EDJ	SiA437DJ
V_{DS}	-12 V	-20 V
$R_{DS(on)}$	< 13 mΩ	< 14.5 mΩ
Continuous I_D	31	29.7

Enable **LONGER** battery life



INCREASE efficiency of
 power delivery

PREVENT undesired fault signals

COMPACT and space saving PCB
 layout **OPTIMIZATION**

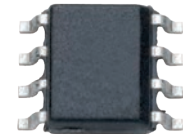


SiSA01DN

-30 V, 4.9 mΩ

PowerPAK® 1212-8

10.89 mm²



SO-8 equivalent

-30 V, 5 mΩ

SO-8

31 mm²

65 % smaller footprint



Lowest On-Resistance per Area for P-Channel MOSFETs: Down to Half of Previous Industry Best

Advantages of Vishay P-Channel Gen III MOSFETs

- Lowest on-resistance per area enables the smallest PCBs
- Lower voltage drops increase efficiency and battery run time
- Dual devices offer the potential for reduced component count in typical battery charger designs

For the Following Applications

- Load switches
- Adaptor switches
- Battery switches
- DC motors
- Charger switches
- Battery protection



A variety of package sizes and on-resistance ratings accommodates a wide range of applications



P-channel Gen III's low on-resistance enables low conduction losses to save power and extend battery usage per charge

Useful Links

- P-Channel Gen III MOSFETs Product Portfolio
www.vishay.com/mosfets/geniii-p/
- P-Channel Gen III MOSFETs with On-Resistance Down to 1.2 V Product Portfolio
www.vishay.com/mosfets/12-rated-on-res/



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FREE

A **WORLD OF**
SOLUTIONS™