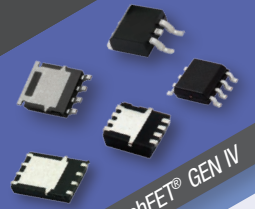




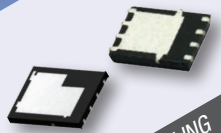
Low and Medium Voltage N-Channel MOSFETs

High Performance MOSFETs From 25 V to 100 V



TrenchFET[®] GEN IV

High Performance MOSFETs From 25 V to 200 V



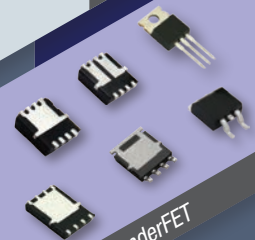
DUAL SIDE COOLING

Ultra Compact Thermally Enhanced Packages



PowerPAK[®] SC-70
PowerPAK[®] SC-75

High Performance MOSFETs From 150 V to 250 V



ThunderFET



LOW AND MEDIUM VOLTAGE N-CHANNEL MOSFETs

Focus Products

SINGLE N-CHANNEL, 25 V to 250 V

Broad market product line; 25 V to 250 V with low $R_{DS(on)}$, excellent $R_{DS} * Q_g$ FOM, and leadership $R_{DS} * C_{oss}$ FOM in a wide array of package options

V_{DS} (V)	TO-247	TO-220	D ² PAK (TO-263)		PowerPAK [®]					LITTLE FOOT [®]	
			7L	3L	Dual Cool	SO-8	SO-8L	1212-8	SC-70	SO-8	TSOP-6
250		31 mΩ		31 mΩ		54 mΩ					
200	9.5 mΩ	15.2 mΩ		15 mΩ	31.9 mΩ	31.9 mΩ		105 mΩ	1380 mΩ		
150	5.4 mΩ	9.4 mΩ		9 mΩ	17.7 mΩ	17.7 mΩ	23.2 mΩ	58 mΩ	177 mΩ		
125						11.5 mΩ		29.8 mΩ			
100		4 mΩ	3.8 mΩ	4 mΩ	4.8 mΩ	4.8 mΩ	8 mΩ	14.4 mΩ	55 mΩ	8.8 mΩ	126 mΩ
80		3.4 mΩ		3.2 mΩ	2.9 mΩ	2.9 mΩ	6.2 mΩ	19.5 mΩ			93 mΩ
60		2.3 mΩ		2.1 mΩ	1.7 mΩ	1.7 mΩ	8 mΩ	4.5 mΩ	18.5 mΩ	4.2 mΩ	
40		1.6 mΩ		1.4 mΩ	0.88 mΩ	0.88 mΩ	1.35 mΩ	1.98 mΩ	12.5 mΩ	2.4 mΩ	
30					0.62 mΩ	0.62 mΩ		1.2 mΩ	8.4 mΩ	3.4 mΩ	
25					0.58 mΩ	0.58 mΩ		1.2 mΩ	5.6 mΩ		

Lowest maximum $R_{DS(on)}$ specifications

Featured Products, Single Channel

- SiRA20DP: the lowest $R_{DS(on)}$ 25 V device; less than 0.58 mΩ
- SiAA00DJ: the lowest $R_{DS(on)}$ 25 V in 2 mm x 2 mm; less than 5.6 mΩ
- SiSS04DN: the lowest $R_{DS(on)}$ 30 V in 3 mm x 3 mm; less than 1.2 mΩ
- SiSS12DN: the lowest $R_{DS(on)}$ 40 V in 3 mm x 3 mm; less than 1.98 mΩ
- SiR626DP: high performance 60 V in 6 mm x 5 mm; double-cooled version is available (SiDR626DP)

DUAL N-CHANNEL, 30 V to 150 V

Low $R_{DS(on)}$, compact form factor, integrates two MOSFETs

Dual N-Channel MOSFETs			PowerPAK [®] 1212-8SCD			PowerPAK [®] 1212-8			PowerPAK [®] SO-8		
Common-Drain			Dual			Dual					
Part Number	V_{DS} (V)	$R_{S1-S2(on)}$ (Ω) $V_{GS} = 10$ V	Part Number	V_{DS} (V)	$R_{DS(on)}$ (Ω) $V_{GS} = 10$ V	Part Number	V_{DS} (V)	$R_{DS(on)}$ (Ω) $V_{GS} = 10$ V			
SiSF00DN	30	0.005	SiSB46DN	40	0.01171	SiRB40DP	40	0.00325			
			SiS990DN	100	0.085	Si7252DP	100	0.017			
						Si7946ADP	150	0.186			

Featured Products, Dual Channel

- SiSF00DN: 30 V dual common-drain; $R_{S1-S2(on)}$ is less than 5 mΩ
- SiRB40DP: 40 V dual 3.25 mΩ in PowerPAK[®] SO-8

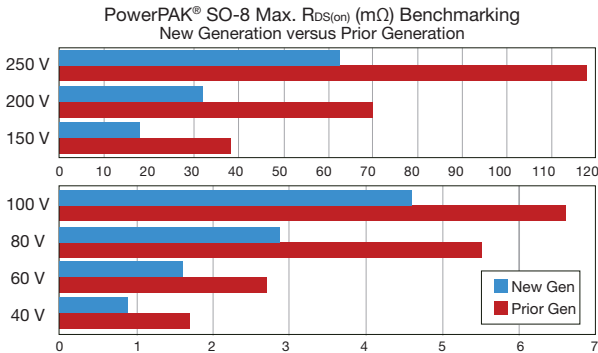


LOW AND MEDIUM VOLTAGE N-CANNEL MOSFETs

Focus Products

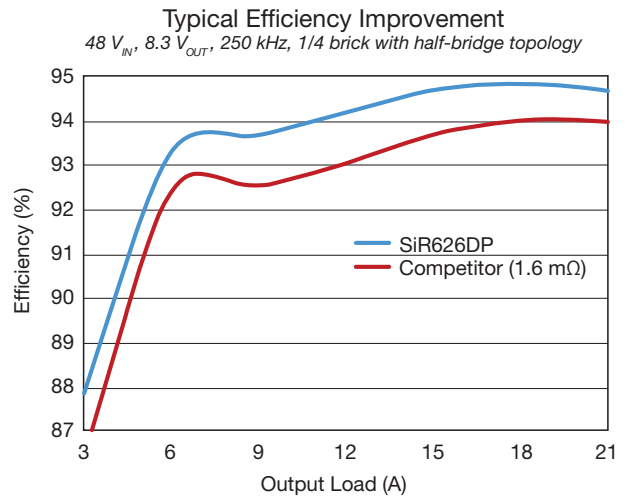
Innovation for Increased Power Density and Efficiency

Breakdown Voltages: 40 V to 250 V



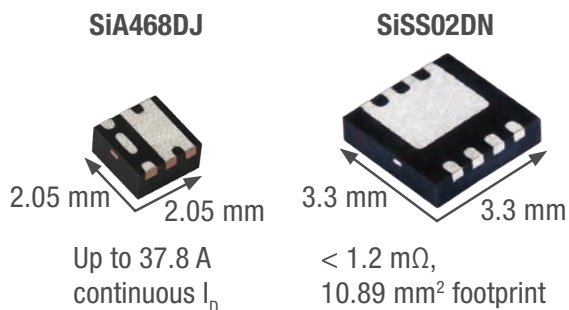
Industry's lowest $R_{DS} * Q_{oss}$
figure-of-merit (FOM) in an
advanced package array

Excellent Dynamic Parameters Optimize Switching Characteristics



Solution Size and Profile Reduction

Space-saving packages



Dual-Sided Cooling Feature



Thin Profile with 0.56 mm typical height;
footprint **Compatible to PowerPAK® SO-8**
 $R_{DS(on)}$ as low as **0.58 m Ω**

Latest Technologies Provide Greater Than 50 % Lower On-Resistance Compared To Previous Generation

Advantages of Vishay Siliconix Low and Medium Voltage N-Channel MOSFETs

- 30 % lower $R_{DS(on)} \times Q_g$ FOM enables lower power losses than previous generation
- Exceptionally low Q_{gd} / Q_{gs} ratios enhance immunity to shoot-through
- Includes thermally enhanced PowerPAK® packaging for increased power densities
- Wide range of compact package sizes for optimization in a variety of applications

For the Following Applications

- DC/DC converters
- DC/AC inverters and motor drive controls
- Synchronous rectification
- OR-ing, eFuse
- Battery management and protection



Providing high performance, thermally enhanced power stage solutions for today's power conversion topologies



An extensive range of solutions to achieve high efficiency and reliability

Useful Links

- www.vishay.com/mosfets/trenchfet-gen-iv/
- www.vishay.com/mosfets/medium-voltage/

Facts

- Vishay's n-channel MOSFETs with optimized $R_{DS(on)}$, Q_{gd} , and Q_{oss} increase efficiency by balancing conduction and switching power losses
- Vishay is your true one-stop shop for building blocks in power conversion by providing high performance MOSFETs from 30 V to 650 V and power passive components



HALOGEN
FREE