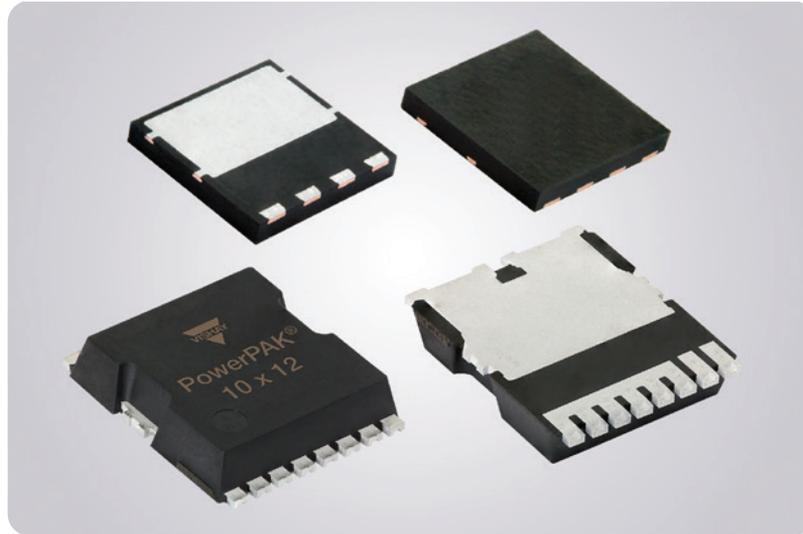




The DNA of tech.™

MOSFETs for 5G Power Infrastructure



KEY BENEFITS:

- E Series Superjunction Standard MOSFETs
 - Best in class PFC solutions
 - Lowest FOM
- EF Series Superjunction MOSFETs With Integrated Fast Body Diode
 - Fast body diode provides as much as 10x reduction in Q_{rr} over the standard E Series MOSFET for lifetime control
 - 2x reduction in charging and discharging time over competition
 - Designed and developed for soft switching topologies such as LLC resonant
- Gen V Low and Medium Voltage MOSFETs
 - 30 V to 150 V device options
 - Optimized combination of $R_{DS(on)}$, Q_g , and C_{oss}

5G APPLICATIONS



5G BASE STATIONS
5G ROUTERS
AC/DC SMPS



5G
INFRASTRUCTURE



CLOUD
COMPUTING



EDGE
COMPUTING

RESOURCES:

- For technical questions contact: pmossupport@vishay.com



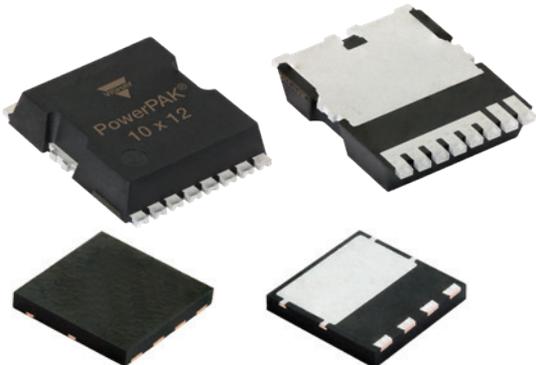
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MOSFETs

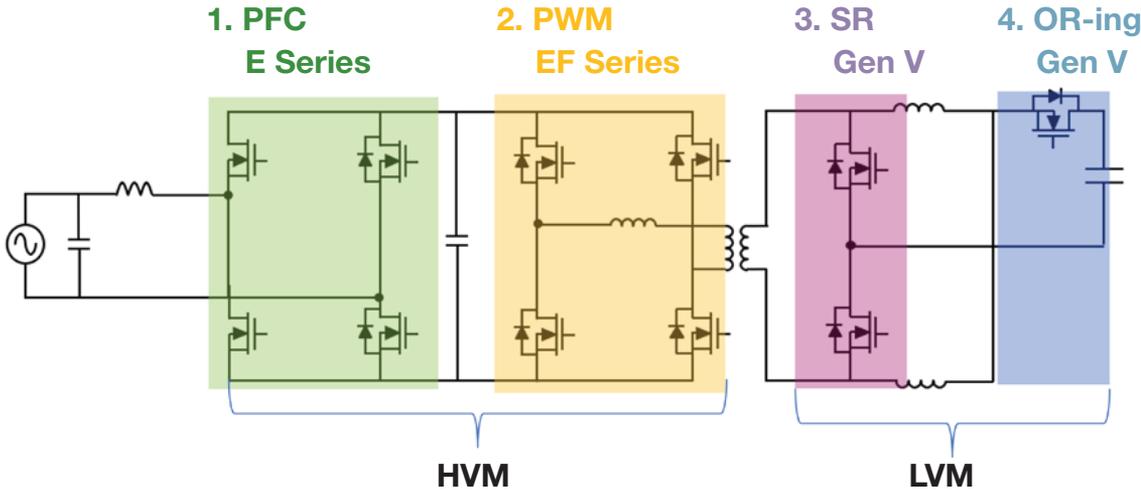
Vishay Siliconix

AVAILABLE IN LATEST SURFACE-MOUNT PACKAGE SOLUTIONS

- PowerPAK® 10 x 12
 - Low profile; dimensions: 9.9 mm x 11.7 mm x 2.3 mm
 - TO-leadless package
 - Integrated Kelvin source connection
- PowerPAK® 8 x 8
 - Low profile; dimensions: 8 mm x 8 mm x 1 mm
 - Integrated Kelvin source connection



AC/DC Power Architecture



Synchronous Rectification Gen V Medium Voltage MOSFETs

- Ideal combination of $R_{DS(on)}$, Q_g , and C_{oss}
 - SiR58XDP: 80 V Series
 - SiR51XDP: 100 V Series
 - SiR57XDP: 150 V Series

OR-ing Gen V Low Voltage MOSFETs

- Ultra low $R_{DS(on)}$
 - SiR580DP: 80 V, 2.7 mΩ, $V_{OUT} = 48$ V
 - SiR500DP: 30 V, 0.47 mΩ, $V_{OUT} = 12$ V



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MOSFETs

Vishay Siliconix

Part Number	V _{DS} (V)	V _{GS} (V)	R _{DS(on)} (Ω) Max. V _{GS} = 10 V	R _{DS(on)} (Ω) Max. V _{GS} = 7.5 V	R _{DS(on)} (Ω) Max. V _{GS} = 4.5 V	Q _g (nC) Typ. V _{GS} = 10 V	Q _{gs} (nC) Typ.	Q _{gd} (nC) Typ.	I _D (A) T _C = 25 °C	R _θ (Ω) Typ.
E Series										
SiHK045N60E	600	± 30	0.049			65	28	14	48	0.8
SiHK055N60E	600	± 30	0.056			54	26	11	42	0.8
SiHK125N60E	600	± 30	0.12			29	13	6	23	0.8
SiHH068N60E	600	± 30	0.068			53	17	20	34	0.7
SiHH080N60E	600	± 30	0.08			42	19	10	32	0.7
SiHH100N60E	600	± 30	0.1			35	11	13	28	0.6
SiHH120N60E	600	± 30	0.12			29	11	8	24	0.63
EF Series										
SiHH070N60EF	600	± 30	0.071			50	20	17	36	0.7
SiHH105N60EF	600	± 30	0.105			33	16	8	26	0.7
SiHH125N60EF	600	± 30	0.125			31	12	11	23	0.65
Gen V LVM and MVM										
SiR570DP	150	20	0.008	0.009		46.9	18.1	4.2	77.4	1.1
SiR578DP	150	20	0.009	0.01		30	13.5	2	70.2	1.35
SiR572DP	150	20	0.011	0.012		35.9	12.7	3.8	59.7	1.05
SiR574DP	150	20	0.014	0.014		31.5	11.6	3.7	48.1	1
SiR576DP	150	20	0.016	0.017		25.2	9.1	2.8	42.2	1
SiR510DP	100	20	0.004	0.004		54	23.3	3	126	1.15
SiR5102DP	100	20	0.004	0.006		33.7	15.7	1.7	110	1.15
SiR512DP	100	20	0.005	0.005		41	17.9	2.3	100	1.05
SiR514DP	100	20	0.006	0.007		31	12.4	1.7	84.8	1.05
SiR516DP	100	20	0.008	0.009		23.6	10.1	1.6	63.7	0.95
SiR580DP	80	20	0.003	0.003		50.6	22	3.9	146	1.1
SiR5802DP	80	20	0.003	0.004		37.3	16.5	3.2	137.5	1.1
SiR582DP	80	20	0.003	0.004		44.5	16.3	4.5	116	1.1
SiR584DP	80	20	0.004	0.005		36.7	12.1	3.6	100	1.1
SiR586DP	80	20	0.006	0.007		25.3	9	2.7	78.4	1
SiR588DP	80	20	0.008	0.009		18.7	6.6	2.1	59.5	1
SiR500DP	30	16	0.00047		0.00068	120	25.6	8.7	350.8	0.9