

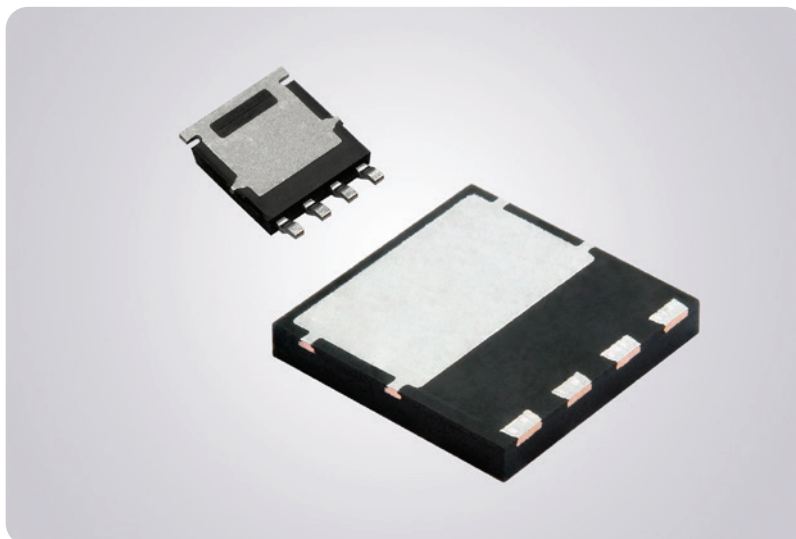


The DNA of tech.™

# MOSFETs

## Vishay Siliconix

### 600 V and 650 V E-Series and EF-Series Power MOSFETs in PowerPAK® SO-8L and PowerPAK® 8x8



#### KEY BENEFITS:

- E Series Superjunction Standard MOSFETs
  - Feature a large drain terminal for low thermal resistance and a Kelvin source connection that can increase efficiency by improving the gate drive signal
  - Designed and developed for hard switching topologies such as power factor correction (PFC)
- 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
  - Designed and developed for soft switching topologies such as LLC resonant
- PowerPAK® SO-8L Package
  - AEC Q101 qualified package for high-power, high-temperature applications with outstanding thermo-mechanical resilience; drop-in replacement for PowerPAK SO-8
- PowerPAK® 8x8 Package
  - RoHS-compliant, halogen-free, and 100% lead (Pb)-free, provides a space-saving alternative to conventional TO-220 and TO-263 solutions; Integrated Kelvin source connection to improve noise immunity

#### RESOURCES

- For technical questions contact: [pmossupport@vishay.com](mailto:pmossupport@vishay.com)



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Series	Package	Form Factor	Part Number	V <sub>DS</sub> (V)	V <sub>GS</sub> (V)	R <sub>DS(on)</sub> (Ω) Max. V <sub>GS</sub> = 10 V	Q <sub>g</sub> (nC) Typ. V <sub>GS</sub> = 10 V	Q <sub>gs</sub> Typ. (nC)	Q <sub>gd</sub> Typ. (nC)	I <sub>D</sub> (A)		R <sub>g</sub> Typ. (Ω)
										T <sub>C</sub> = 25 °C	T <sub>C</sub> = 100 °C	
E Series	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ240N60E</a>	600	30	0.24	15	4	6	12	7	1.5
	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ10N60E</a>	600	30	0.36	25	6	13	10	6	0.8
	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ8N60E</a>	600	30	0.52	22	5	10	8	5	0.93
	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ690N60E</a>	600	30	0.7	8	3	3	5.6	3.5	2.3
	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ6N65E</a>	650	30	0.868	16	5	7	5.6	3.6	1.3
	PowerPAK SO-8L	5 x 6	<a href="#">SiHJ7N65E</a>	650	30	0.598	22	6	9	7.9	5	0.8
	PowerPAK 8x8	8 x 8	<a href="#">SiHH068N60E</a>	600	30	0.068	53	17	20	34	22	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH080N60E</a>	600	30	0.08	42	19	10	32	20	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH100N60E</a>	600	30	0.1	35	11	13	28	18	0.6
	PowerPAK 8x8	8 x 8	<a href="#">SiHH120N60E</a>	600	30	0.12	29	11	8	24	15	0.63
	PowerPAK 8x8	8 x 8	<a href="#">SiHH180N60E</a>	600	30	0.18	22	7	11	19	12	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH240N60E</a>	600	30	0.24	15	4	6	12	7	1.5
	PowerPAK 8x8	8 x 8	<a href="#">SiHH14N60E</a>	600	30	0.255	41	8	16	16	10	0.75
	PowerPAK 8x8	8 x 8	<a href="#">SiHH11N60E</a>	600	30	0.339	31	7	13	11	7	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH24N65E</a>	650	30	0.15	77	19	33	23	15	0.55
	PowerPAK 8x8	8 x 8	<a href="#">SiHH21N65E</a>	650	30	0.17	66	16	28	20.3	12.8	0.55
	PowerPAK 8x8	8 x 8	<a href="#">SiHH14N65E</a>	650	30	0.26	48	12	21	15	10	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH11N65E</a>	650	30	0.363	34	9	15	12	8	0.7
EF Series	PowerPAK 8x8	8 x 8	<a href="#">SiHH070N60EF</a>	600	30	0.071	50	20	17	36	23	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH27N60EF</a>	600	30	0.1	90	17	45	29	18	0.6
	PowerPAK 8x8	8 x 8	<a href="#">SiHH125N60EF</a>	600	30	0.125	31	12	11	23	14	0.65
	PowerPAK 8x8	8 x 8	<a href="#">SiHH26N60EF</a>	600	30	0.141	80	16	33	24	15	0.6
	PowerPAK 8x8	8 x 8	<a href="#">SiHH186N60EF</a>	600	30	0.193	21	7	7	16	10	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH14N60EF</a>	600	30	0.266	42	9	17	15	9	0.8
	PowerPAK 8x8	8 x 8	<a href="#">SiHH11N60EF</a>	600	30	0.357	31	7	13	11	7	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH24N65EF</a>	650	30	0.158	78	18	33	23	14	0.53
	PowerPAK 8x8	8 x 8	<a href="#">SiHH21N65EF</a>	650	30	0.18	68	15	28	19.8	12.5	0.55
	PowerPAK 8x8	8 x 8	<a href="#">SiHH14N65EF</a>	650	30	0.271	49	11	20	15	9.5	0.7
	PowerPAK 8x8	8 x 8	<a href="#">SiHH11N65EF</a>	650	30	0.382	35	8	15	11	7	0.7