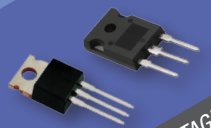




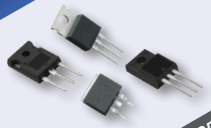
High Voltage MOSFETs

600 V and 650 V
Superjunction
N-Channel **MOSFETs**
With Fast Body Diode



EF SERIES HIGH VOLTAGE

**500 V, 600 V,
650 V, and 800 V**
Superjunction
N-Channel **MOSFETs**



E SERIES HIGH VOLTAGE



HIGH VOLTAGE MOSFETs

Focus Products

V _(BR) DSS	Product	I _D	R _{DS(on)}	Q _g	Packages								
					TO-247	Thin-Lead TO-220 FullPAK	TO-220 FullPAK	TO-220	D ² PAK (TO-263)	DPAK (TO-252)	IPAK (TO-251)	PowerPAK® 8 x 8	PowerPAK® SO-8L
(V)	(A)	Max. (Ω)	Typ. (nC)										
x =					G	A	F	P	B	D	U	H	J
500 V	SiHx12N50E	11	0.380	25		x		x	x	x			
	SiHx15N50E	15	0.280	33		x		x	x				
	SiHx20N50E	19	0.184	46	x	x		x	x			x	
	SiHx25N50E	26	0.145	57	x	x		x	x				
600 V	SiHx7N60E	7	0.600	20			x	x		x	x		
	SiHx8N60E	8	0.520	22									x
	SiHx12N60E	12	0.380	29		x		x	x				
	SiHx9N60E	9	0.368	26						x			
	SiHx11N60E	11	0.364	26								x	
	SiHx10N60E	10	0.36	25									x
	SiHx14N60E	13	0.309	32		x		x		x			
	SiHx14N60E	16	0.255	41								x	
	SiHx10N60E	12	0.278	31						x	x		
	SiHx15N60E	15	0.280	39	x	x		x	x				
	SiHx18N60E	18	0.202	46		x		x	x				
	SiHx21N60E	20	0.176	55								x	
	SiHx22N60AE	21	0.18	48	x	x		x	x				
	SiHx22N60EL	21	0.197	37	x	x		x	x				
	SiHx23N60E	23	0.158	63	x		x	x	x				
	SiHx26N60E	25	0.117	77								x	
	SiHx30N60E	29	0.125	85	x		x	x	x				
	SiHx33N60E	33	0.099	100	x			x	x				
	SiHx28N60E	29	0.98	86								x	
	SiHx35N60E	32	0.094	88	x		x	x	x				
SiHx40N60E	40	0.075	131	x									
SiHx38N60E	43	0.065	122				x						
SiHx47N60AE	43	0.065	121	x									
SiHx73N60AE	60	0.04	197	x									
SiHx80N60E	80	0.03	295	x									
650 V	SiHx6N65E	5.6	0.868	16									x
	SiHx6N65E	7	0.600	24		x	x	x	x	x	x		
	SiHx7N65E	7.9	0.598	22									x
	SiHx11N65E	12	0.363	34								x	
	SiHx12N65E	12	0.380	35			x	x	x				
	SiHx14N65E	15	0.260	48								x	
	SiHx15N65E	15	0.280	48			x	x	x				
	SiHx21N65E	20	0.170	66								x	
SiHx22N65E	22	0.180	73	x		x	x	x					



HIGH VOLTAGE MOSFETs

Focus Products

	$V_{(BR)}$ DSS	Product	I_D	$R_{DS(on)}$	Q_g	Packages											
						(A)	$V_{GS} = 10\text{ V}$		TO-247	Thin-Lead TO-220 FullPAK	TO-220 FullPAK	TO-220	D ² PAK (TO-263)	DPAK (TO-252)	IPAK (TO-251)	PowerPAK® 8 x 8	PowerPAK® SO-8L
							Max. (Ω)	Typ. (nC)									
x =						G	A	F	P	B	D	U	H	J			
E Series	650 V	SiHx24N65E	23	0.150	77									x			
		SiHx24N65E	24	0.145	81	x			x	x							
		SiHx28N65E	28	0.122	93	x			x								
		SiHx33N65E	32	0.105	115	x											
		SiHx47N65E	47	0.072	182	x											
		SiHx64N65E	64	0.047	239	x											
800 V	SiHx2N80E	3	2.75	9.8			x				x	x					
	SiHx4N80E	4	1.27	16			x		x	x	x	x					
	SiHx6N80E	5	0.94	22			x		x	x	x	x					
	SiHx11N80E	12	0.44	44	x		x		x	x							
	SiHx17N80E	15	0.29	61	x		x		x	x							

	$V_{(BR)}$ DSS	Product	I_D	$R_{DS(on)}$	Q_g	Packages											
						(A)	$V_{GS} = 10\text{ V}$		TO-247	Thin-Lead TO-220 FullPAK	TO-220 FullPAK	TO-220	D ² PAK (TO-263)	DPAK (TO-252)	IPAK (TO-251)	PowerPAK® 8 x 8	PowerPAK® SO-8L
							Max. (Ω)	Typ. (nC)									
x =						G	A	F	P	B	D	U	H	J			
EF Series	600 V	SiHx11N60EF	11	0.357	31									x			
		SiHx14N60EF	15	0.266	42									x			
		SiHx21N60EF	21	0.176	56	x	x		x	x				x			
		SiHx25N60EFL	25	0.146	50	x	x		x								
		SiHx26N60EF	24	0.141	80									x			
		SiHx28N60EF	28	0.123	80	x		x	x	x							
		SiHx27N60EF	29	0.1	90									x			
		SiHx35N60EF	32	0.097	89	x		x	x	x							
		SiHx38N60EF	40	0.07	126				x								
		SiHx47N60AEF	40	0.07	126	x											
		SiHx70N60AEF	60	0.041	205	x											
650 V	SiHx11N65EF	11	0.382	35									x				
	SiHx14N65EF	15	0.271	49									x				
	SiHx21N65EF	21	0.180	71	x	x	x	x	x				x				
	SiHx24N65EF	24	0.156	81	x	x		x	x				x				
	SiHx28N65EF	28	0.117	97	x			x									
	SiHx33N65EF	32	0.109	114	x												
	SiHx44N65EF	46	0.073	185	x												
	SiHx61N65EF	64	0.047	247	x												



High Performance Technology With Optimized Design Reduces Power Losses and Increases Efficiency

Advantages of E Series and EF Series High Voltage MOSFETs

- Low on-resistance
- Low input capacitance
- Low $R_{DS(on)} \times Q_g$ FOM
- Simple gate drive circuitry and fast switching

For the Following Applications

- Server and telecom power supplies
- HID, LED, and fluorescent ballast lighting
- Industrial: renewable energy, welding, induction heating, motor drives, battery chargers
- Computing and consumer electronics: power adaptors, power supplies, displays



E Series superjunction MOSFET and fast body diode MOSFET technology provide energy savings in central, string, and micro inverters



E Series superjunction MOSFET and fast body diode MOSFET technology increases AC/DC power conversion efficiency

Useful Links

- E Series High Voltage MOSFETs
www.vishay.com/mosfets/e-series-high-voltage-standard/
- EF Series High Voltage MOSFETs
www.vishay.com/mosfets/ef-series-high-voltage/

Facts

- To complement our superjunction technology, we also have new PowerPAK® surface-mount technology



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FREE**
on most devices

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SOLUTIONS™