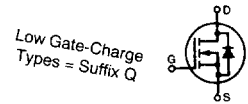
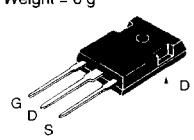
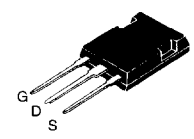


HiPerFET™ Power MOSFETs



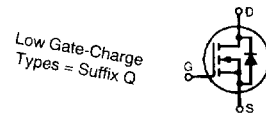
F series - Avalanche ruggedness with Fast Intrinsic Diode

Type	V _{DSS} max.	I _{D(25)} T _C = 25°C	R _{DS(on)} T _C = 25°C	C _{iss} typ.	C _{rss} typ.	t _{tr} max.	Q _g typ.	R _{mJC} max.	P _D max.	Fig. No.	Package style
T _{JM} = 150°C New	V	A	Ω	pF	pF	ns	nC	K/W	W		Outlines page 51 G = Gate, D = Drain, S = Source
IXFH 76N06-11	60	76	0.011	4400	1200	100	240	0.42	360	6	Fig. 6 TO-247 AD Weight = 6 g 
IXFH 76N07-11	70	76	0.011	4400	1200	150*	240	0.42	360		
IXFH 76N07-12			0.012						360		
IXFH 67N10	100	67	0.025	4500	800	200	260	0.42	300		
IXFH 75N10		75	0.02						300		
IXFH 75N10 Q		75	0.02	3700	370	200	160	0.42	300		
IXFH 80N10 Q		80	0.015	5600	510	200	150	0.35	360		
IXFH 50N20	200	50	0.045	4400	285	200	220	0.42	300		
IXFH 58N20		58	0.04						300		
IXFH 58N20 Q		58	0.04	3700	270	200	100	0.42	300		
IXFH 74N20		74	0.03	5600	370	200	150	0.35	360		
IXFH 80N20 Q		80	0.03	5600	370	200	150	0.35	360		
IXFH 35N30	300	35	0.1	4800	280	200	200	0.42	300		
IXFH 40N30		40	0.085						300		
IXFH 40N30 Q		40	0.085	3700	150	200	100	0.42	300		
IXFH 52N30 Q		52	0.06	5600	200	250	150	0.35	360		
IXFH 13N50	500	13	0.4	2800	70	250	120	0.7	180		
IXFH 21N50		21	0.25	4200	135	250	160	0.42	300		
IXFH 24N50		24	0.23						300		
IXFH 26N50		26	0.2						300		
IXFH 26N50 Q		26	0.2	3700	130	250	95	0.42	300		
IXFH 30N50		30	0.16	5400	280	250	227	0.35	360		
IXFH 32N50		32	0.15						360		
IXFH 32N50 Q		32	0.15	5000	170	150	150	0.35	360		
IXFH 15N60		600	15	0.5	4500	140	250	170	0.42	300	
IXFH 20N60			20	0.35						300	
IXFH 20N60 Q	20		0.35	3700	90	250	95	0.42	300		
IXFH 26N60 Q	26		0.25	5600	120	250	150	0.35	360		
IXFH 8N80	800	8	1.1	2600	60	250	130	0.7	180		
IXFH 9N80		9	0.9	2600	60	250	130	0.7	180		
IXFH 9N80 Q		9	1.0	2000	38	150	58	0.63	180		
IXFH 13N80		13	0.80	4200	100	250	155	0.42	300		
IXFH 14N80		14	0.7	4300	60	250	128	0.42	300		
IXFH 15N80	15	0.6						300			
IXFH 15N80 Q	15	0.6	4300	60	250	90	0.42	300			
IXFH 20N80 Q		20	0.42	5760	110	250	110	0.35	360		
IXFH 6N90	900	6	1.8	2600	45	250	130	0.7	180		
IXFH 12N90		12	0.9	4200	90	250	155	0.42	300		
IXFH 13N90		13	1.1						300		
IXFH 13N90 Q		13	0.9	2700	55	150	90	0.42	300		
IXFH 16N90 Q		16	0.6	4000	100	200	95	0.35	360		
IXFH 6N100	1000	6	2.0	2600	45	250	130	0.7	180		
IXFH 6N100 Q		6	2.0	2000	30	150	58	0.63	180		
IXFH 12N100 Q		12	1.0	3000	50	200	95	0.42	300		
IXFH 12N100		12	1.05	4000	70	250	155	0.42	300		
IXFH 13N100		13	0.90						300		
IXFH 14N100		14	0.75	4500	150	200	220	0.35	360		
IXFH 15N100	15	0.7						360			
IXFX 80N10 Q	100	80	0.015	5600	510	200	180	0.35	360	7	Fig. 7 ISOPLUS247 Ⓞ DCB isolated package Weight = 5 g 
IXFX 180N10		180	0.008	9400	1660	250	400	0.22	560		
IXFX 80N20 Q	200	80	0.03	5600	370	250	180	0.35	360		
IXFX 90N20 Q		90	0.022	8000	400	200	190	0.26	500		
IXFX 120N20		120	0.017	9500	1000	175*	350	0.22	560		
IXFX 52N30 Q	300	52	0.06	5600	tbid	250	150	0.35	360		
IXFX 90N30		90	0.033	10000	700	250	360	0.22	560		
IXFR 24N50 Ⓞ	500	24	0.20	4200	135	250	160	0.5	250		
IXFX 32N50		32	0.15	5700	280	250	227	0.35	360		
IXFR 30N50 Ⓞ		32	0.15	5200	240	250	227	0.4	310		
IXFX 50N50		50	0.1	9400	400	250	330	0.22	520		
IXFX 55N50		55	0.08						520		

* typ. value
Ⓞ DCB isolated package

New

HiPerFET™ Power MOSFETs



F series - Avalanche ruggedness with Fast Intrinsic Diode

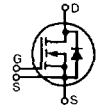
Type	V _{DSS} max.	I _{D(25)} T _C = 25°C	R _{DS(on)} T _C = 25°C	C _{iss} typ.	C _{oss} typ.	t _{tr} max.	Q _g typ.	R _{thJC} max.	P _D max.	Fig. No.	Package style
T _{JM} = 150°C New	V	A	Ω	pF	pF	ns	nC	K/W	W		Outlines on page 51/52 G = Gate, D = Drain, S = Source
▶ IXFX 26N60 Q	600	26	0.25	5000	160	250	150	0.35	360	7	Fig. 7 PLUS247™ Weight = 6 g
▶ IXFX 44N60		44	0.13	9500	330	250	350	0.22	560		
▶ IXFX 34N80	800	34	0.24	8700	270	250	350	0.22	560		
▶ IXFX 16N90 Q	900	16	0.6	4000	100	250	95	0.35	360		
▶ IXFX 14N100	1000	14	0.75	4500	150	200	220	0.35	360		
▶ IXFX 15N100		15	0.7								
IXFK 110N07	70	110 ①	0.006	9000	2400	150	480	0.25	500	11	Fig. 10 TO-268 Weight = 4 g
▶ IXFK 80N10 Q	100	80 ①	0.015	5600	510	200	150	0.35	360		
▶ IXFK 100N10		100 ①	0.012	9000	1600	200	360	0.25	500		
▶ IXFK 170N10		170 ①	0.010	10300	1200	175*	515	0.22	560		
▶ IXFK 180N10		180 ①	0.008	9400	1660	250	400	0.22	560		
▶ IXFK 80N20 Q	200	80 ①	0.03	5600	370	200	150	0.35	360		
IXFK 90N20		90 ①	0.020	9000	590	200	380	0.25	500		
▶ IXFK 90N20 Q		90 ①	0.022	8000	400	200	190	0.26	500		
▶ IXFK 110N20		110 ①	0.020	10300	1200	175*	515	0.22	560		
▶ IXFK 120N20		120 ①	0.017	9100	1000	175*	360	0.22	560		
▶ IXFK 52N30 Q	300	52	0.06	5600	260	250	150	0.35	360		
IXFK 73N30		73	0.045	9000	560	200	360	0.25	500		
▶ IXFK 90N30		90 ①	0.033	9500	700	150*	330	0.22	560		
IXFK 33N50	500	33	0.016	5680	240	250	227	0.3	416		
IXFK 35N50		35	0.015								
IXFK 44N50		44	0.12	8400	280	250	270	0.25	500		
IXFK 48N50		48	0.10								
▶ IXFK 50N50		50	0.1	9400	460	210	330	0.22	520		
▶ IXFK 55N50		55	0.08								
▶ IXFK 26N60 Q	600	26	0.25	5000	160	250	150	0.35	360	9	Fig. 9 TO-268 (leadless) Weight = 5 g
IXFK 32N60		32	0.25	9000	280	250	325	0.25	500		
IXFK 36N60		36	0.18								
▶ IXFK 44N60		44	0.13	9500	330	250	360	0.22	560		
▶ IXFK 20N80 Q	800	20	0.42	5760	110	250	110	0.35	360		
▶ IXFK 27N80		27	0.32	8400	200	250	250	0.25	500		
▶ IXFK 34N80		34	0.24	8700	270	250	350	0.22	560		
▶ IXFK 26N90	900	26	0.3	7500	180	150*	270	0.22	560		
▶ IXFT 75N10 Q	100	75	0.02	3700	425	200	100	0.42	300	10	Fig. 11 TO-264 AA Weight = 10 g
▶ IXFT 80N10 Q		80	0.015	5400	510	200	150	0.35	360		
IXFT 50N20	200	50	0.045	4400	285	200	230	0.42	300	9	
IXFT 58N20		58	0.04								
▶ IXFT 58N20 Q		58	0.04	3700	270	150*	100	0.42	300	10	
▶ IXFT 74N20 Q		74	0.03	5600	370	150*	150	0.35	360		
▶ IXFT 40N30 Q	300	40	0.085	4000	130	200	100	0.42	300	9	
IXFJ 40N30		40	0.08	4800	280	200	177	0.42	300		
▶ IXFT 52N30 Q		52	0.06	5600	200	150*	150	0.35	360		
IXFT 24N50	500	24	0.23	4200	125	250	160	0.42	300	10	
IXFT 26N50		26	0.2								
▶ IXFT 26N50 Q		26	0.2	3400	130	250	95	0.42	300	9	
▶ IXFT 32N50 Q		32	0.15	5400	280	250	227	0.35	360		
▶ IXFJ 32N50 Q		32	0.15							10	
▶ IXFT 20N60 Q	600	20	0.35	3700	90	250	95	0.42	300		
▶ IXFT 26N60 Q		26	0.25	5000	tbd	150*	150	0.35	360		
▶ IXFT 15N80 Q	800	15	0.6	4300	60	250	90	0.42	300	9	
▶ IXFT 20N80 Q		20	0.42	5400	110	250	110	0.35	360		
▶ IXFT 16N90 Q	900	16	0.6	4000	100	150*	95	0.35	360	10	
▶ IXFT 10N100	1000	10	1.20	4000	70	250	122	0.42	300		
▶ IXFT 12N100		12	1.05	4000	70	250	122	0.42	300		
▶ IXFT 12N100 Q		12	1.0	3000	50	200	95	0.42	300		
▶ IXFT 13N100		13	0.90	4000	70	250	122	0.42	300		
▶ IXFT 14N100		14	0.75	4500	150	200	220	0.35	360		
▶ IXFT 15N100		15	0.7	4500	150	200	220	0.35	360		

① I_D limited by leads

* Typical values

Data at 25 °C unless
otherwise specified

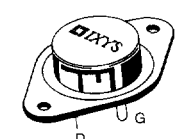
HiPerFET™ Power MOSFETs



F series - Avalanche ruggedness with Fast Intrinsic Diode

Type	V _{DSS} max.	I _{D(25)}	R _{DS(on)}	C _{iss} typ.	C _{rss} typ.	t _{rr} max.	Q _g typ.	R _{th(jc)} max.	P _D max.	Fig. No.	Package style
T _{JM} = 150°C	V	T _C = 25°C	T _C = 25°C	pF	pF	ns	nC	K/W	W		Outlines page 52
New		A	Ω								
IXFN 180N07	70	180	0.006	9500	1800	150	360	0.21	600	12	Fig. 12 SOT-227B miniBLOC Weight = 30 g G = Gate, D = Drain, S = Source Either source terminal can be used as Kelvin or Main
IXFN 200N07		200	0.006	9000	2400	150	480	0.24	520		
IXFN 340N07		340	0.004	22000	2200	150	690	0.18	700		
IXFN 150N10	100	150	0.012	9000	1600	200	520	0.24	520		
IXFN 170N10		170	0.01	10300	1200	175*	515	0.21	600		
IXFN 180N10		180	0.008	9400	1660	250	400	0.21	600		
IXFN 230N10	200	230	0.006	21000	1500	250	690	0.18	700		
IXFN 100N20		100	0.023	9000	590	200	380	0.24	520		
IXFN 106N20		106	0.020								
IXFN 110N20	300	110	0.020	9500	1000	175*	330	0.21	600		
IXFN 120N20		120	0.017	9500	1000	175*	330	0.21	600		
IXFN 180N20		180	0.010	22000	600	250	660	0.18	700		
IXFN 73N30	500	73	0.045	9000	560	200	380	0.24	520		
IXFN 90N30		90	0.033	9500	700	250	330	0.21	600		
IXFN 130N30		130	0.018	15500	610	180*	555	0.18	700		
IXFN 44N50	800	44	0.12	8400	280	250	270	0.24	520		
IXFN 44N50U2 ②		44	0.12			50 ①					
IXFN 44N50U3 ③		44	0.12								
IXFN 48N50	900	48	0.10	8400	280	250	270	0.24	520		
IXFN 48N50U2 ②		48	0.10			50 ①					
IXFN 48N50U3 ③		48	0.10								
IXFN 50N50	1000	50	0.1	9400	400	250	330	0.21	600		
IXFN 55N50		55	0.08								
IXFN 80N50		80	0.048	15700	390	250	610	0.18	700		
IXFN 32N60	800	32	0.25	9000	280	250	325	0.24	520		
IXFN 36N60		36	0.18								
IXFN 44N60		44	0.13	9500	330	250	350	0.21	600		
IXFN 60N60	900	60	0.08	15500	260	150*	540	0.18	700		
IXFN 27N80		27	0.30	8400	200	250	250	0.24	520		
IXFN 34N80		34	0.24	8700	270	250	350	0.21	600		
IXFN 44N80	900	44	0.15	tbd	tbd	150	450	0.18	700		
IXFN 26N90		26	0.3	7500	180	250	270	0.21	600		
IXFN 39N90		39	0.21	15000	150	150	450	0.18	700		
IXFN 36N100	1000	36	0.24	15000	100	180*	455	0.18	700		
IXFM 67N10	100	67	0.025	4500	800	200	260	0.42	300	13a	
IXFM 75N10		75	0.02								
IXFM 50N20	200	50	0.045	4400	285	200	220	0.42	300	13b	
IXFM 35N30	300	35	0.1	4800	280	200	200	0.42	300		
IXFM 40N30		40	0.088								
IXFM 13N50	500	13	0.4	2800	70	250	120	0.7	180	13b	
IXFM 21N50		21	0.25	4200	135	250	160	0.42	300		
IXFM 24N50		24	0.23								
IXFM 15N60	600	15	0.5	4500	140	250	170	0.42	300		
IXFM 20N60		20	0.35								
IXFM 7N80	800	7	1.4	2800	100	250	130	0.7	180	13b	
IXFM 13N80		13	0.80	4200	100	250	155	0.42	300		
IXFM 6N90	900	6	1.8	2600	45	250	130	0.7	180		
IXFM 12N90		12	0.9	4200	90	250	155	0.42	300		
IXFM 6N100	1000	6	2.0	2600	45	250	130	0.7	180		
IXFM 12N100		12	1.05	4000	70	250	155	0.42	300		

Fig. 13a TO-204 AE
Fig. 13b TO-204 AA
Weight = 12 g



① t_{rr} of the free-wheeling diode
② with FRED Diode as Boost converter
③ with FRED Diode as Buck converter
* t_{rr} = typ.

Protection of MOSFETs from electro static discharge (ESD)

The MOSFET devices described in this publication are ESD sensitive. Normal precautions relative to the handling and installation of such products must be observed.
IEC 60747