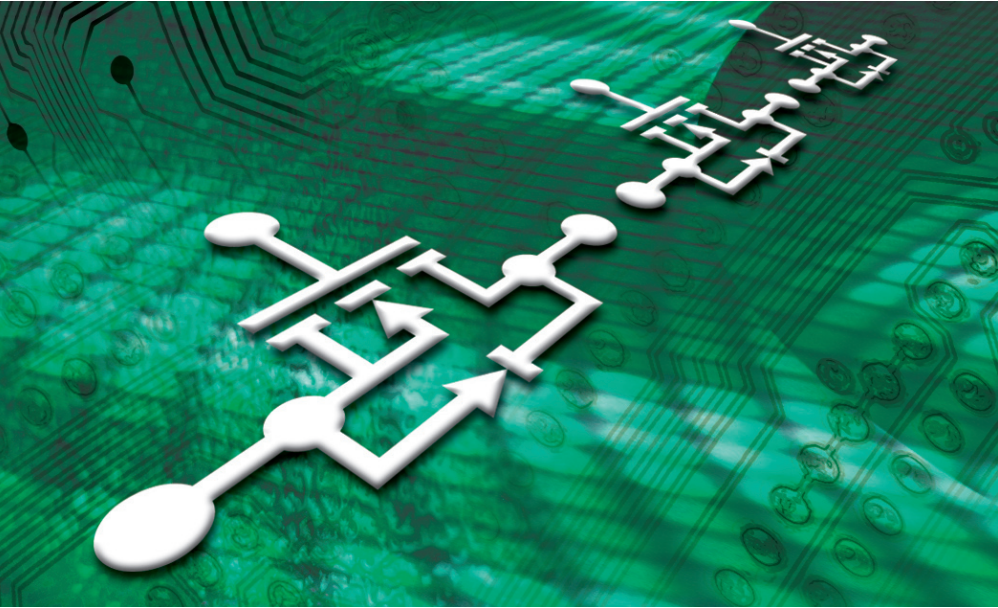


Power MOSFETs

Selection guide



February 2009

Ordering information

ST



x

70

N

H

3

L

Package type

Surface mounting

C = TSSOP8
T = SOT23-6L
S = SO-8
N = SOT-223
D = DPAK ("D...**T4**" for older types)
L = PowerFLAT
K = PolarPAK
B = D²PAK ("B...**T4**" for older types)
Z = P²PAK
H = H²PAK (2 to 7 leads)
V = PowerSO-10
E = ISOTOP
Through hole
Q = TO-92
U = IPAK ("D...**1**" for older types)
P = TO-220/Pentawatt
I = I²PAK ("B...**1**" for older types)
F = TO-220FP
FW = TO-3PF
W = TO-247
Y = Max247

Channel Polarity

N = N-channel
P = P-channel
NS or PS = N-ch or P-ch plus Schottky diode (electrically connected, monolithic included)
DNS or DPS = N-ch or P-ch plus Schottky diode (not electrically connected)
N...N = Two different N-channel dice
N...P = Complementary pair
DN or DP = Dual N-ch or Dual P-ch

Technology (optional)

F = STripFET II
FS = STripFET II + Schottky diode
H = STripFET III (20 V - 30 V)
HS = STripFET III + Schottky diode
H5 = STripFET V (20 - 30 V)
H6 = STripFET VI DeepGATE (10 V - 30 V)
F3 = STripFET III (33 V - 150 V)
F4 = STripFET DeepGATE (55 V - 150 V)
F5 = STripFET V 40 V
C = PowerMESH II
K...Z = SuperMESH
K3 = SuperMESH3
M = MDmesh
M...N = MDmesh II
M5 = MDmesh V

Breakdown voltage divided by 10

with the exception of non 10 multiples

Special features

L = Logic level 5 V drive optimized
LL = Logic level 4.5 V drive optimized
V = Super logic level (2.5 V - 2.7 V drive)
D = Fast recovery diode

SAFeFET

T = Temperature sensing
Z = Clamped by zener diode

Indicative current range

MDmesh™

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)	T _{rr} (typ) (ns)	Q _{rr} (typ) (μC)	I _{rrm} (typ) (A)	dv/dt (V/ns)	PowerFLAT 6 x 5	DPAK	IPAK	D ² PAK	I ² PAK	T0-220	T0-220FP	T0-247	Max247®	ISO70P®
300	0.09	STP30NM30N	30	75	350	5	30	18						■				
	0.05	STE70NM50	70	190	532	9.9	37	15										■
	0.054	STW55NM50N	54	180	630	13	40	15								■		
	0.085	STW43NM50N	37	140	630	11	42	15								■		
	0.115	STx30NM50N	27	94	480	8	33	15				B	I	P	F	W		
	0.14	STx25NM50Ny	22	84	460	6.9	30	15				B	B...-1	P	F	W		
	0.19	STx21NM50Ny	18	65	360	5	27	15				B		P	F	W		
	0.26	STx16NM50Ny	16	38								B	I	P	F	W		
	0.32	STx13NM50Ny	12	30	300	3	22	15				B	B...-1	P	F	W		
500	0.38	STx12NM50N	11	30	340	3.5	20	25		D			I		F			
	0.56	STx9NM50Ny	7.5	24	280	2	14	15		D	D...-1			P	F			
	0.78	STx7NM50Ny	5	12	250	2	13	15		D				P	F			
	0.035	STY80NM60N	74	360	700	25	69	15									■	
	0.06	STW55NM60N	51	190	600	15	51	30								■		
	0.088	STW43NM60N	35	130	540	12	44	30								■		
	0.13	STx30NM60N	25	91	540	10	36	15				B	I	P	F	W		
	0.165	STx26NM60N*	24											P	F			
	0.17	STx25NM60Ny	20	84	427	7.2	33.6	15						P	F	W		
600	0.19	STx23NM60N	19	60	472	7	29.6	15				B	I	P	F	W		
	0.22	STx21NM60Ny	17	60	372	4.6	24.8	15					B...-1	P	F	W		
	0.299	STx15NM60N	13	37	390	5	25	15				B	I	P	F	W		
	0.36	STx13NM60N*	12							D				P	F			
	0.41	STx12NM60Ny	10	30.5	360	3.5	20	15				B	B...-1	P	F	W		
	0.45	STx11NM60Ny	10	31	340	3.6	19.2	15		D	D...-1	B	B...-1	P	F			
	0.65	STx8NM60Ny	6.8	24	310	240	15	15		D	D...-1			P	F			
	0.92	STx6NM60Ny	4.6	13	300	2	12	15		D	D...-1			P	F			
	0.92	STL6NM60N	5.7	13	300	2	12	15	■									
650	1.5	STx3NM60y	3	10	224	1	9	15		D...T4	D...-1							
	0.022	STY112N65M5*	93	360													■	
	0.038	STW77N65M5*	66													■		
	0.065	STW54NM65N*	50	185												■		
	0.079	STx42N65M5	33	100	400	7	35	15				B	I	P	F	W		

*Coming soon

x, y: refer to the package option

MDmesh™ (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _D (cont) (A)	Q _g (typ) @ 10 V (nC)	T _{rr} (typ) (ns)	Q _{rr} (typ) (μC)	I _{rrm} (typ) (A)	dv/dt (V/ns)	PowerFLAT 6 x 5	DPAK	IPAK	D ² PAK	I ² PAK	TO-220	TO-220FP	TO-247	Max247®	ISOT0p®
650	0.098	STx35N65M5*	27									B	I	P	F	W		
	0.119	STx32N65M5*	24									B	I	P	F	W		
	0.139	STx30N65M5*	21									B	I	P	F	W		
	0.179	STx21N65M5*	17.4	45								B	I	P	F	W		
	0.19	STx24NM65N	19	70	460	7	30	35				B	I	P	F	W		
	0.27	STx19NM65N	15.5	55	460	6	27	15				B	I	P	F	W		
	0.299	STx16N65M5	12	45	300	3.5	23	15		D	U			P	F			
	0.375	STx12N65M5*	9	20						D	U			P	F			
	0.38	STx14NM65N	12	45	390	5	25	15				B	I	P	F	W		
800	0.48	STx10NM65N	9	25	330	3	19	15		D	U			P	F			
	0.3	STx18NM80*	17	60				15				B		P	F		W	
	0.4	STx11NM80y	11	40	612	7.22	23.6	15				B...T4		P	F	W		
	1.05	STx7NM80y	6.2	18	456	3.9	16.9	15		D	D...-1			P	F			

FDmesh™ and SuperFREDmesh™

V _{DSS} (V)	R _{DS(on)} max @ 10 V (Ω)	Part number	I _D (cont) (A)	Q _g (typ) @ 10 V (nC)	T _{rr} (typ) (ns)	Q _{rr} (typ) (μC)	I _{rrm} (typ) (A)	dv/dt (V/ns)	DPAK	IPAK	D ² PAK	I ² PAK	TO-220	TO-220FP	TO-247	ISOT0p®	Max247®
200	0.012	STE140NF20D*	140													■	
	0.012	STY130NF20D*	130														■
	0.38	STx12NM50ND*	11	30					D	D...-1	B			F			
500	2.7	STx4NK50ZDy	3	12	73	139	3.8	15	D	D...-1							
520	1.5	STx5NK52ZDy	4.4	20	139	500	7.2	15	D				P	F			
600	0.06	STW55NM60ND	51	190	200	1.8	18	30							■		
	0.088	STW43NM60ND	35	130	190	7	35	30							■		
	0.13	STx30NM60ND	25	100	200	2	17	20							■		
	0.16	STx25NM60ND	21	80	160	1	15	40			B	I	P	F	W		

*Coming soon

x, y: refer to the package option

FDmesh™ and SuperFREDmesh™ (cont'd)

V _{DSS} (V)	R _{DS(on)} max @ 10 V (Ω)	Part number	I _D (cont) (A)	Q _g (typ) @ 10 V (nC)	T _{rr} (typ) (ns)	Q _{rr} (typ) (μC)	I _{rrm} (typ) (A)	dv/dt (V/ns)	PAK	IPAK	D ² PAK	I ² PAK	T0-220	T0-220FP	T0-247	ISOTOP®	Max247®
600	0.18	STx23NM60ND	20	60	140	0.85	12	40			B	I	P	F	W		
	0.22	STx21NM60NDy	17	60	135	0.81	12	40			B	I	P	F	W		
	0.299	STx15NM60ND	14	40	148	0.91	12	40			B	I	P	F	W		
	0.45	STx11NM60ND	10	31	130	0.69	11	40	D	U		I	P	F			
	0.7	STx8NM60ND	7	22	120	0.49	8	45	D	U			P	F			
	0.95	STx9NK60ZDy	7	41	150	0.663	8.5	15			B...T4		P	F			
	3.6	STD3NK60ZD	2.4	11.8					■								
620	1.6	STx5N62DK3*	4	16					D				P	F			
900	0.17	STE40NK90ZD	40	590	450	9.6	16.2	8								■	

P-Channel

-60 V to -20 V

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _D (cont) (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 or 5 V (nC)	Q _g (typ) @ 4.5 or 5 V (nC)	Q _g (typ) @ 10 V (nC)	SOT23-6L	SOT-223	SOT-8	PAK	IPAK	D ² PAK	T0-220
-60	0.2	STP12PF06	-12				16							■
	0.2	STx10PF06y	-10				16				D...T4	D...-1		
	0.2	STN3PF06	-2.5				16		■					
-55	0.018	STx80PF55y	-80				190						B...T4	P
-30	0.021	STS7PF30L	-7		0.028	28	60			■				
	0.028	STD30PF03LT4	-24		0.04	18.5	35				■			
	0.055	STS8C5H30L	-4		0.075	12.5	24			■				
	0.055	STS5PF30L	-5		0.075	12.5	24			■				
	0.165	STT3PF30L	-3		0.2	4.8	11	■						
-20	0.055	STS4DPF20L	-4		0.075	12.5	24			■				
		STT5PF20V	-5	0.1	0.08	9.3		■						

*Coming soon

x, y: refer to the package option

N-Channel

20 V to 40 V

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	TSSOPg	SOT-223	PowerFLAT 3_3 x 3_3	PowerFLAT 6 x 5	SO-8	DPAK	IPAK	D ² PAK	I ² PAK	H ² PAK	PowerSO-10	TO-220	TO-220FP	PolarPAK®
20		STL120N2VH5*	100	0.004	0.003						■										
		STS5DNF20V	5	0.045	0.04	8.5						■									
		STS6NF20V	6	0.045	0.04	8.5						■									
		STCSNF20V	5	0.045	0.04	8.5		■													
	0.0012	STH300NH03L-6*	180			109											■				
24	0.0014	STB300NH02L	120			109									■						
	0.0018	STP300NH02L	120			109													■		
	0.002	STV300NH02L	300			110															
	0.002	STK822	38		0.0024	50	95											■			■
	0.007	STU70N2LH5	48		0.01	8								■							
25	0.008	STD70N2LH5	48		0.01	8							■								
	0.005	STD95N2LH5	80		0.006	14	25						■								
	0.005	STP95N2LH5*	80		0.007	14	25												■		
	0.005	STU95N2LH5	80		0.007	14	25							■							
	0.007	STK820	21		0.008	15	28														■
	0.012	STU40N2LH5*	38		0.017	8	15							■							
	0.013	STD40N2LH5*	38		0.014	8	15						■								
30	0.018	STL150N3LLH5	35		0.02	40															
	0.018	STS9NH3LL	9		0.022	10						■									
	0.0023	STB230NH03L	250		0.003		72								■						
	0.003	STB100NF03L-03-1	100		0.005		160								■						
	0.0032	STB100NF03L-03T4	100		0.005		160								■						
	0.0033	STU150N3LLH6	80			29								■							
	0.0035	STK850	30		0.0043		32.5														■
	0.0035	STK28N3LLH5*	28		0.0043	15															■
	0.0035	STS25NH3LL	25		0.005	30	70					■									
	0.0035	STL100NH3LL	100		0.005	30	70				■										
	0.0036	STx200NF03y	120				113														
	0.004	STx80NF03L-04y	80		0.0055		150								B...T4				P		
	0.004	STD95N3LLH6*	80			16							■		B...T4 B...-1				P		
	0.004	STK30NHS3LL*	30			25															■
	0.0042	STL100NHS3LL*	100		0.006	27.5					■										

*Coming soon

x, y: refer to the package option

20 V to 40 V (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	TSOPg	SOT-223	PowerFLAT 3.3 x 3.3	PowerFLAT 6 x 5	SO-8	DPAK	IPAK	D ² PAK	I ² PAK	H ² PAK	PowerSO-10	TO-220	TO-220FP	PolarPAK®
30	0.0042	STS20NHS3LL*	20		0.0057	27.5						■									
	0.0045	STU95N3LLH6*	80			16								■							
	0.005	STD85N3LH5	80		0.007	14	25						■								
	0.0054	STx85N3LH5	80		0.007	14	25							U					P		
	0.0054	STL15N3LLH5	15		0.0075	12	22.5				■										
	0.0055	STx100N3LF3y	80		0.01	20							D	U							
	0.0057	STx90N03Ly	80		0.011		25						D...T4 D...-1								
	0.0058	STL65N3LLH5	65		0.008	12	22.5				■										
	0.006	STS14N3LLH5	14		0.008	12	22.5														
	0.006	STI120NH03L	80		0.009		80									I					
	0.0065	STP90NF03L	90		0.012		62												■		
	0.007	STK20N3LLH5*	20		0.01	8.5															■
	0.0078	STK800	30		0.0098	13.4															■
	0.008	STB85NF3LLT4	85		0.0095	28	54								■						
	0.0083	STD60N3LH5	48		0.012	8.5							■								
	0.0083	STx60N3LH5	48		0.014	8.5								U					P		
	0.0088	STL55NH3LL	15		0.012						■										
	0.0095	STP60NF03L	60		0.012	24	40												■		
	0.0095	STB70NF03LT4	70		0.018	22.5	33								■						
	0.0095	STB70NF3LLT4	70		0.012	24	40								■						
	0.0095	STB70NF03LT4	70		0.018	22.5	33								■						
	0.01	STD50N03L	50		0.019	10.4							■								
	0.0105	STS11NF30L	11		0.019	22.5	33					■									
	0.0105	STS12NH3LL	12		0.013	9						■									
	0.011	STD40NF3LLT4	40		0.0135	24	40						■								
	0.011	STD40NF03LT4	40		0.0195	22.5	33						■								
	0.013	STL50NH3LL	27		0.015	9															
	0.013	STB55NF03LT4	55		0.021		35								■						
	0.015	STL8NH3LL	8		0.017	9				■											
	0.015	STS9D8NH3LL	8		0.018	7	13					■									
	0.018	STS9NH3LL	9		0.022		10					■									
	0.018	STK38N3LLH5*	38		0.024	36	70														■

*Coming soon

x, y: refer to the package option

20 V to 40 V (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	TSOPg	SOT-223	PowerFLAT 3.3 x 3.3	PowerFLAT 6 x 5	SO-8	DPAK	IPAK	D ² PAK	I ² PAK	H ² PAK	PowerSO-10	TO-220	TO-220FP	PolarPAK®
30	0.02	STD27N3LH5*	27		0.029																
	0.021	STx27N3LH5*	27		0.029																
	0.022	STS8DNH3LL	8		0.025	7	16					■									
	0.022	STx40NF03L	40		0.035	11	22												P	F	
	0.022	STS8C5H30L	8		0.025	7	16					■									
	0.025	STD30NF03LT4	30		0.035		31						■								
	0.028	STD150N3LLH6*	80			29							■								
	0.05	STx17NF03Ly	17		0.06	5	9						D...T4 D...-1								
	0.05	STN4NF03L	6.5		0.06	5	9		■												
	0.05	STP22NF03L	22		0.06	5	9												■		
	0.055	STS4DNFS30L	4		0.065	5	9					■									
	0.11	STS2DNF30L	2		0.15		4.5					■									
33		STC6NF30V	6	0.03	0.025	11		■													
		STC5DNF30V	5	0.035	0.031	8.5		■													
	0.011	STP75NS04Z	80				68												■		
40	0.015	STP62NS04Z	62				34												■		
	0.0015	STV270N4F3	200				110											■			
	0.0016	STH270N4F3-6*	180				110										■				
	0.0025	STB270N4F3	160				110								■						
	0.0029	STx270N4F3y	120				110									I			P		
	0.0035	STB200NF04L	120		0.0043	72	140								■						
	0.0037	STx200NF04y	120				170								B...T4				P		
	0.0038	STx200NF04Ly	120		0.0046	72	140									B...-1			P		
	0.0044	STB200N4F3	120												■						
	0.0046	STx100NF04y	120				110								B...T4				P		
	0.0046	STP120NF04	120																■		
	0.005	STB170NF04	80												■						
	0.005	STL80N4LLF3	80		0.007	21.5					■										
	0.005	STS15N4LLF3	15		0.007	21.5						■									
	0.0065	STx90N4F3	80				40						D	U		I			P		

*Coming soon

x, y: refer to the package option

> 40 V to 150 V

V _{DS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	SOT23	SOT-223	PowerFLAT 6 x 5	S0-8	DPAK	IPAK	D ² PAK	I ² PAK	P ² PAK	H ² PAK	T0-92	T0-220	T0-220FP	T0-247	Max247®	ISOTop®	Power S0-10	PolarPAK®
55	0.002	STV250N55F3	250				100																		
	0.0025	STV200N55F3	150				100																		
	0.0035	STB180N55F3	120				105							■											
	0.0037	STP190N55LF3	120				70													■					
	0.0038	STP180N55F3	120				105													■					
	0.055	STS50NF60L	5		0.0065	15.5	32				■														
	0.006	STx150NF55y	120				140							B...T4					P			W			
	0.0065	STx80NF55-06y	80				140							B...T4	B...-1				P	P...FP					
	0.0065	STx80NF55L-06y	80		0.008		175							B...T4					P						
	0.0065	STP80NF55-06FP	60				140													■					
	0.008	STx90N55F4	80											B					P						
	0.008	STB80NF55L-08-1	80		0.01		110								■										
	0.008	STP85NF55L	80		0.01	80	150												■						
	0.008	STP140NF55	80				142												■						
	0.008	STx80NF55-08	80				112												P			W			
	0.0085	STx60N55F3	65				40					D	U						P		F				
	0.009	STZ150NF55T*	150													■									
	0.0105	STB60N55F3	65				40							■											
	0.015	STD60NF55LT4	60		0.017	40	72				■														
60	0.0057	STL85N6F3*	19				60			■															
	0.006	STK22N6F3*	22				60																		■
	0.008	STP80NF06	80				120												■						
	0.0105	STD65N6F3*	65				35					■													
	0.014	STP65NF06	60				54												■						
	0.014	STP60NF06L	60		0.016		65												■						
	0.016	STx60NF06y	60				54					D...T4							P						
	0.016	STP60NF06FP	37				49														■				
	0.018	STx55NF06Ly	55		0.02	27								B...T4					P						
	0.018	STx55NF06y	55				45							B...T4					P	P...FP					
	0.0195	STD35NF06LT4	35		0.0215		50					■													
	0.0195	STS7NF60L	7.5		0.0215		50				■														

*Coming soon

x, y: refer to the package option

> 40 V to 150 V (cont'd)

V _{DS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	SOT23	SOT-223	PowerFLAT 6 x 5	S0-8	DPAK	I ² PAK	D ² PAK	I ² PAK	P ² PAK	H ² PAK	T0-92	T0-220	T0-220FP	T0-247	Max247®	ISOTop®	Power S0-10	PolarPAK®
60	0.02	STD35NF06T4	35				45					■													
	0.028	STB45NF06T4	38				43							■											
	0.028	STD30NF06LT4	28		0.03		42					■													
	0.028	STD30NF06T4	28				43					■													
	0.028	STF40NF06	23				32														■				
	0.028	STP45NF06	38			58														■					
	0.0035	STB200N6F3	120				90																		
	0.0038	STx200N6F3	120				90								I					P					
	0.04	STD20NF06LT4	20		0.048	12						■													
	0.04	STD20NF06T4	20				23					■													
	0.04	STP36NF06	30				23													■					
	0.04	STP36NF06FP	18				23														■				
	0.04	STx36NF06Ly	30		0.05	13								B...T4						P					
	0.055	STS4DNF60L	4		0.065	15.5	32				■														
	0.07	STD16NF06T4	16				14					■													
	0.07	STD16NF06LT4	16		0.085	10						■													
	0.07	STD20NF06T4	20				14													■					
	0.07	STD20NF06LT4	20		0.085		14													■					
	0.1	STx16NF06Ly	16		0.12		12							B...T4						P					
	0.1	STx12NF06Ly	12		0.12		12					D...T4 D...-1													
	0.1	STD12NF06T4	12				10					■													
	0.1	STN3NF06	3				10			■															
	0.1	STN3NF06L	3		0.12		12			■															
	0.1	STx16NF06y	16				10																		
	5	2N7000	0.35	5.3			1.4											■		P	P...FP				
	5	2N7002	0.25	5.3			1.4	■																	
68	0.014	STP75NF68	80				75													■					
75	0.0026	STV240N75F3	240				100																		■
	0.0037	STB160N75F3	120				85							■											
	0.004	STx160N75F3	120				85								I				P		W				
	0.0052	STP155N75F4*	150				140												■		W				

*Coming soon

x, y: refer to the package option

> 40 V to 150 V (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	R _{DS(on)} (max) @ 2.7 V (Ω)	R _{DS(on)} (max) @ 4.5 V or 5 V (Ω)	Q _g (typ) @ 4.5 V or 5 V (nC)	Q _g (typ) @ 10 V (nC)	SOT23	SOT-223	PowerFLAT 6 x 5	S0-8	DPAK	IPAK	D ² PAK	I ² PAK	P ² PAK	H ² PAK	TO-92	TO-220	TO-220FP	TO-247	Max247®	ISOTop®	Power S0-10	PolarPAK®
75	0.006	STK20N75F3*	20				50																		
	0.0075	STx140NF75y	120				160							B...T4					P						
	0.011	STB75NF75LT4	75		0.013	70	150							■											
	0.011	STx75NF75y	75				117							B...T4					P						
	0.011	STP75NF75FP	40				117													■					
	0.024	STD45NF75T4	40				60					■													
	0.0055	STE250NS10	200				900																■		
	0.0065	STx140N10F4*	140				140							B					P	F					
	0.01	STY140NS10	140				450															■			
	0.0105	STx120NF10y	120				172							B...T4						F	W				
100	0.015	STx80NF10y	80				135							B...T4					P						
	0.0195	STx70N10F4	60				80					D		B											
	0.0195	STx70N10F4	65				80												P		W				
	0.023	STx60NF10y	80				104							B...T4					P						
	0.028	STx40NF10y	40				60							B...T4					P						
	0.033	STx40NF10Ly	40		0.036		60							B...T4					P						
	0.035	STx35NF10y	40				55							B...T4					P						
	0.035	STD25NF10LT4	25		0.04	38						■													
	0.038	STD25NF10T4	25				55					■													
	0.045	STx30NF10y	35				40							B...T4					P						
	0.06	STP24NF10	26				30												■						
	0.06	STS4NF100	4				30				■														
	0.065	STD15NF10T4	23				30					■													
	0.13	STD10NF10T4	13				15					■													
	0.13	STP14NF10	15				15												■						
	0.25	STx6NF10y	6				10						D...T4		I										
	0.26	STN2NF10	2				10		■																
	0.8	STN1NF10	1				4		■																
150	0.018	STP80NF12	80				140												■						
	0.032	STP40NF12	40				60												■						
	0.18	STx14NF12y	14				15												P	P...FP					

*Coming soon

x, y: refer to the package option

> 40 V to 150 V (cont'd)

[illegible]

> 150 V to 400 V

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)	SOT-223	PowerFlat 6	DPAK	IPAK	D ² PAK	I ² PAK	T0-220	T0-220FP	T0-247	ISOTop®	Max247®
200	0.012	STE140NF20D*	140											■	
	0.012	STY130NF20D*	130												■
	0.023	STW90NF20	83	164									W		
	0.034	STx75NF20	75	160					B		P		W		
	0.045	STx40NF20	40	75					B		P	F	W		
	0.075	STx30NF20	30	50					B		P		W		
	0.125	STx20NF20	18	28		L	D				P	F			
	0.16	STx19NF20*	15	30					B		P	F			
	0.4	IRF630	9	31							■				
250	0.7	STD5N20LT4	5	5			■								
	0.8	STD5N20T4	5	19			■								
	1.5	STN1N20	1	11	■										
	0.045	STW52NK25Z	52	200									■		
	0.069	STx50NF25	45	68.2					B		P				
	0.165	STx17NF25	17	29.5			D			I	P	F			
	0.165	STL17NF25*	17	29.5		L									
	0.235	STx16NF25	13	18		D					P	F			
	0.45	STP8NS25	8	37							■				

*Coming soon

x, y: refer to the package option

> 150 V to 400 V (cont'd)					SOT-223	PowerFlat 6 x 5	DPAK	IPAK	D ² PAK	I ² PAK	TO-220	TO-220FP	TO-247	ISOTop®	Max247®
V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)											
250	1.1	STD4NS25T4	4	19			■								
	0.45	STW75NF30	60	180									W		
300	0.45	STY60NK30Z	60	220											Y
	0.075	STB46NF30*	45	85					■						
	0.09	STP30NM30N	30	75							■				
	0.4	STP12NK30Z	9	30							■				
	0.9	STx7NK30Z	5.7	15			D				P				
400	0.25	STx17NK40Zy	15	69							P	P...FP			
	0.55	STx11NK40Zy	9	30					B...T4		P	P...FP			
	1	STx7NK40Zy	6	20			D...T4				P	P...FP			
	1.8	STx5NK40Zy	4	12			D...-1	D...-1							

> 400 V to 650 V					SOT-223	PowerFlat 6 x 5	SO-8	DPAK	IPAK	D ² PAK	I ² PAK	TO-92	TO-220	TO-220FP	TO-247	Max247®	ISOTop®
V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)													
450	4.5	STD2NC45-1	1.5	7					■								
	4.5	STQ1NC45R-AP	0.5	7								■					
	4.5	STS1DNC45	0.4	7			■										
500	0.05	STE70NM50	70	190													■
	0.054	STW55NM50N	54	180											■		
	0.08	STE53NC50	53	310													■
	0.085	STW43NM50N	37												■		
	0.1	STW45NM50FD	45	92											■		
	0.115	STx30NM50N	27							B	I		P	F	W		
	0.13	STW29NK50Z	31	190											■		
	0.14	STx25NM50Ny	22	84						B	B...-1		P	F	W		

*Coming soon

x, y: refer to the package option

> 400 V to 650 V (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _D (cont) (A)	Q _g (typ) @ 10 V (nC)	SOT-223	PowerFlat 6 x 5	S0-8	DPAK	IPAK	D ² PAK	I ² PAK	T0-92	T0-220	T0-220FP	T0-247	Max247®	ISOT0P®
500	0.19	STx21NM50Ny	18	65						B			P	F	W		
	0.26	STx16NM50Ny	16	38						B	I		P	F	W		
	0.27	STx20NK50Zy	18	95						B...T4			P	F	W		
	0.32	STx13NM50Ny	12	30						B	B...-1		P	F	W		
	0.34	STx15NK50Zy	14	76									P	P...FP	W		
	0.38	STx12NM50N	11	30				D			I				F		
	0.38	STx12NM50ND*	11	30				D		B					F		
	0.38	STx14NK50Zy	14	69						B...T4	B...-1		P	P...FP	W		
	0.48	STx13NK50Z	11	50									P	F	W		
	0.52	STx11NK50Zy	10	49						B...T4			P	P...FP			
	0.56	STx9NM50Ny	7.5	24				D	D...-1				P	F			
	0.75	STF10NK50Z	9	45										■			
	0.78	STx7NM50Ny	5	12				D					P	F			
	0.85	STx9NK50Zy	7.2	35						B...T4			P	P...FP			
	1.5	STx5NK50Zy	4.4	20				D...T4					P	P...FP			
	2.7	STx4NK50Zy	3	12				D...T4	D...-1				P	P...FP			
	2.7	STx4NK50ZDy	3	12				D...T4	D...-1								
	3.3	STQ3NK50ZR-AP	0.5	11								■					
	3.3	STx3NK50Zy	2.3	11				D...T4	D...-1				P				
	1.5	STx5NK52ZDy	4.4	20				D					P				
520	0.98	STx7N52K3*	6.3					D		B			P	F			
525	1.2	STx6N52K3*	5					D					P	F			
550	0.22	STW24NK55Z	23	130											■		
600	0.035	STY80NM60N	74	360												■	
	0.06	STW55NM60ND	51	190											■		
	0.06	STW55NM60N	51	190											■		
	0.088	STW43NM60N	35	130											■		
	0.088	STW43NM60ND	35	130											■		
	0.13	STx30NM60N	25	100						B	I		P	F	W		
	0.13	STx30NM60ND	25	100						B	I		P	F	W		
	0.135	STE40NC60	40	307													■
	0.160	STx25NM60Ny	20	84									P	F	W		

*Coming soon

x, y: refer to the package option

> 400 V to 650 V (cont'd)

V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _D (cont) (A)	Q _g (typ) @ 10 V (nC)	SOT-223	PowerFlat 6 x 5	S0-8	DPAK	IPAK	D ² PAK	I ² PAK	TO-92	TO-220	TO-220FP	TO-247	Max247®	ISOT0P®
600	0.16	STx25NM60ND	21	80						B	I		P	F	W		
	0.165	STx26NM60N*	24										P	F			
	0.18	STx23NM60ND	20	60						B	I		P	F	W		
	0.19	STx23NM60N	19							B	I		P	F	W		
	0.22	STx21NM60Ny	17	60							B...-1		P	F	W		
	0.22	STx21NM60NDy	17	60						B	I		P	F	W		
	0.299	STx15NM60N	13	37						B	I		P	F	W		
	0.299	STx15NM60ND	14	40						B	I		P	F	W		
	0.36	STx13NM60N*	12					D					P	F			
	0.41	STx12NM60Ny	10	30.5						B	B...-1		P	F	W		
	0.42	STx16NK60Zy	14	86									P	F	W		
	0.45	STx11NM60Ny	10	31				D	D...-1	B	B...-1		P	F			
	0.45	STx11NM60ND	10	31				D	U		I		P	F			
	0.5	STx14NK60Zy	13.5	75						B...T4			P		W		
	0.55	STx13NK60Zy	13	66						B...T4			P	P...FP	W		
	0.64	STx12NK60Z	10	60									P	F			
	0.65	STx8NM60Ny	6.8	24				D	D...-1				P	F			
	0.7	STx8NM60ND	7	19				D	U				P	F			
	0.75	STx10NK60Zy	10	50						B...T4	B...-1		P	P...FP	W		
	0.92	STL6NM60N	5.7	13		L											
	0.92	STx6NM60Ny	5	17				D	D...-1	B			P	F			
	0.95	STx9NK60Zy	9	40						B...T4			P	P...FP			
	0.95	STx9NK60ZDy	7	41						B...T4			P	F			
	1.2	STx6NK60Zy	6	33						B...T4	B...-1		P	P...FP			
	1.5	STx3NM60y	3	10				D...T4	D...-1								
	1.6	STx5NK60Zy	5	25									P	P...FP			
	2	STx4NK60Zy	4	19				D...T4	D...-1	B...T4	B...-1		P	P...FP			
	2.7	STx4LNK60Z	3.3	14				D						F			
	3.6	STx3NK60Zy	3	12.5				D...T4	D...-1	B...T4			P	P...FP			
	3.6	STD3NK60ZD	2.4	11.8				■									
	4.8	STQ2HNK60ZR-AP	0.5	11								■					
	4.8	STx2HNK60Zy	2	11				D	D...-1					F			

*Coming soon

x, y: refer to the package option

> 400 V to 650 V (cont'd)					SOT-223	PowerFlat 6 x 5	S0-8	DPAK	IPAK	D ² PAK	I ² PAK	TO-92	TO-220	TO-220FP	TO-247	Max247®	ISOT0p®
V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)													
600	7.8	STQ2NK60ZR-AP	1.5	8								■					
	8	STF2NK60Z	1.4	7.7										■			
	8.5	STN1HNK60	0.4	7	■												
	8.5	STQ1HNK60R-AP	0.4	7								■					
	8.5	STS1HNK60	0.8	7			■										
	8.5	STx1NK60y	1	7				D...T4	D...-1								
	15	STx1NK60Z	0.3	4.9	N		S										
620	15	STQ1NK60ZR-AP	0.3	4.9								■					
	0.38	STx17N62K3	15										P	F	W		
	0.75	STx10N62K3*	10										P	F			
	1.28	STx6N62K3*	5.5	25				D	U				P	F			
	1.6	STx5N62DK3*	4	16				D					P	F			
650	2.5	STx3N62K3	2.7	13				D	U	B			P	F			
	0.022	STY112N65M5*	93	360												■	
	0.038	STW77N65M5*	66												■		
	0.065	STW54NM65N*	50	185													
	0.079	STx42N65M5	33	100									P	F	W		
	0.098	STx35N65M5*	27							B	I		P	F	W		
	0.119	STx32N65M5*	24							B	I		P	F	W		
	0.139	STx30N65M5*	21							B	I		P	F	W		
	0.179	STx21N65M5*	17.4	45						B	I		P	F	W		
	0.19	STx24NM65N	19							B	I		P	F	W		
	0.27	STx19NM65N	15.5							B	I		P	F	W		
	0.299	STx16N65M5*	12	41				D	U								
	0.375	STx12N65M5*	9	20				D	U				P	F			
	0.38	STx14NM65N	12	45						B	I		P	F	W		
	0.48	STx10NM65N	9	25				D	U				P	F			
	0.5	STx16NK65Z	13	89									P	F			
	0.7	STx12NK65Z	10	63							I		P	F			
	1.2	STx9NK65Zy	7	41									P	P...FP			
	1.8	STP5NK65ZFP	5	31										■			

*Coming soon

x, y: refer to the package option

> 650 V					DPAK	IPAK	D ² PAK	I ² PAK	TO-220	TO-220FP	TO-3PF	TO-247	Max247®	ISO10P®	TO-92
V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)											
700	0.85	STx10NK70Zy	8	60					P	P...FP					
	1.2	STx9NK70Zy	7.5	48			B...T4	B...-1							
	1.8	STx6NK70Z	4.9	33					P	F		W			
	7	STD2NK70Z-1	1.6	11.4		■									
800	0.3	STx18NM80*	17				B		P	F		W			
	0.38	STW18NK80Z	17	220								■			
	0.4	STx11NM80y	11	40			B...T4		P	F		W			
	0.65	STW13NK80Z	12	120								■			
	0.75	STx12NK80Zy	10.5	87			B...T4		P			W			
	0.9	STx10NK80Zy	9	72					P	P...FP		W			
	1.05	STx7NM80y	6.2	18	D...T4	D...-1			P	F					
	1.5	STx8NK80Zy	6.2	50					P	P...FP		W			
	1.8	STx7NK80Zy	5.2	40			B...T4	B...-1	P	P...FP					
	2.4	STx5NK80Zy	4.3	32.4					P	P...FP					
	3.5	STx4NK80Zy	3	22.5	D	D...-1			P	P...FP					
	4.5	STx3NK80Zy	2.5	18	D...T4	D...-1			P	F					
	16	STx1NK80Zy	1	5	D...T4	D...-1									
	16	STN1NK80Z	0.3	5											
	16	STQ1NK80ZR-AP	0.3	5											■
850	1.4	STF8NK85Z	6.7	60						■					
900	0.17	STE40NK90ZD	40	590								■			
	0.3	STE30NK90Z	30	390										■	
	0.3	STY30NK90Z	26	390									■		
	0.55	STW15NK90Z	14.5	220								■			
	0.88	STW12NK90Z	11	120								■			
	0.98	STW11NK90Z	9.2	100								■			
	1.3	STx9NK90Z	8	72			B		P	F		W			
	2	STx6NK90Zy	6	50			B...T4		P	P...FP					
	2	STW7NK90Z	6	50								■			
	4.2	STF3HNK90Z	3	26						■					
	4.8	STx3NK90Zy	2.8	25	D...T4				P	P...FP					
	6.5	STx2NK90Zy	2.1	19.5	D...T4	D...-1			P						

*Coming soon

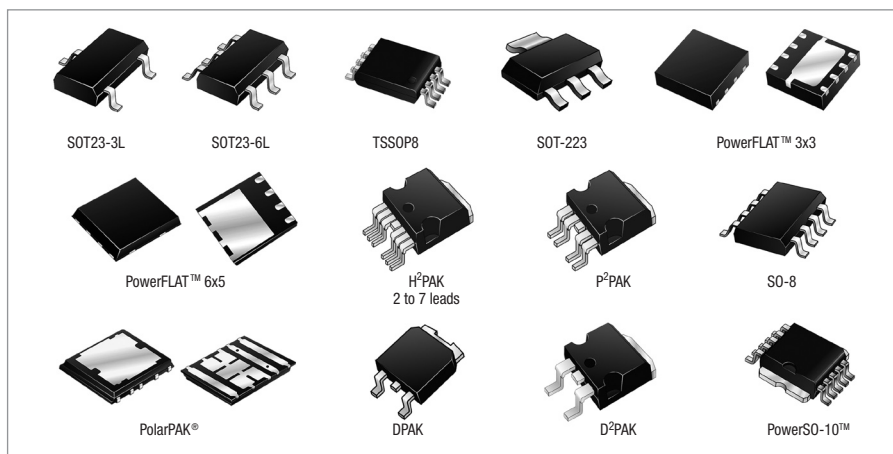
x, y: refer to the package option

> 650 V (cont'd)					DPAK	IPAK	D ² PAK	I ² PAK	TO-220	TO-220FP	TO-3PF	TO-247	Max247®	ISO10p®	TO-92
V _{DSS} (V)	R _{DS(on)} (max) @ 10 V (Ω)	Part number	I _{D(cont)} (A)	Q _g (typ) @ 10 V (nC)											
950	0.36	STW25N95K3*	22									■			
	0.85	STx13N95K3*	13						P	F		W			
	0.9	STW12NK95Z	1.02	113								■			
	1.35	STx7N95K3	7.2	42			B		P	F		W			
	3	STx5N95K3*	5		D	U			P	F					
1000	0.7	STW13NK100Z	12	220								■			
	1.38	STW11NK100Z	10.5	120								■			
	2	STx8NK100Z	6.3	75					P	F					
	3.7	STx5NK100Z	3.5	40					P	F		W			
	5.7	STx3NK100Z	2.5	18	D				P	F					
1200	8.5	STx2NK100Z	2	15	D	U			P						
	3.5	STP5N120	4.4	55					■						
1500	2.7	STW9N150	8	89.3								■			
	7	STx4N150	4	30							FW	W			
	12	STx3N150	2.5	18							FW	W			

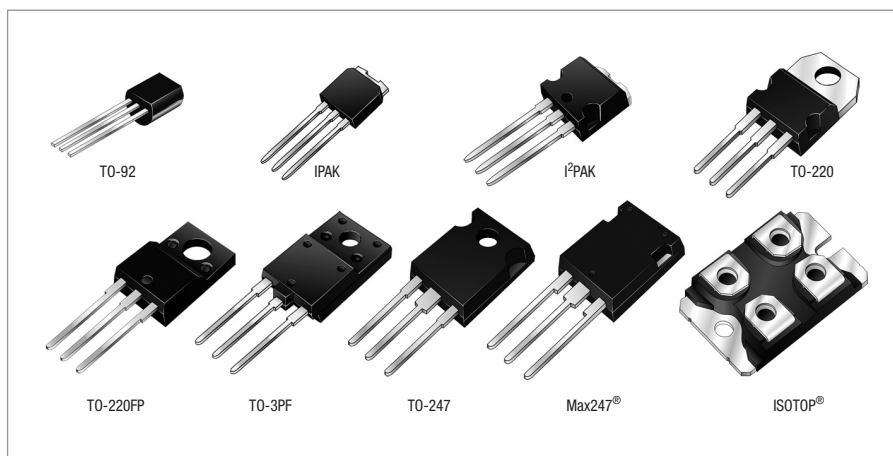
*Coming soon

x, y: refer to the package option

Surface mounting packages



Through hole packages



Package images are not to scale



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