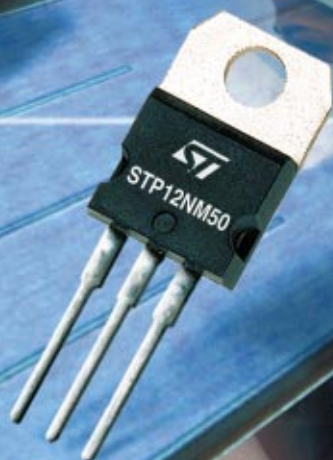




November '99



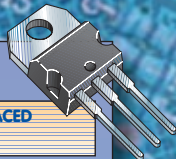
## Selection Guide

Including new MDmesh™ devices



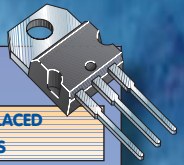
# Power MOSFETs

# TO-220



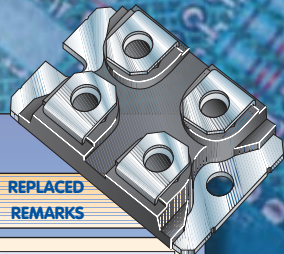
$V_{DS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_D$ (cont) (A)	DEVICES REPLACED REMARKS	
-60	0.2	STP12PF06	12		
30	0.004	STP80NF03L-04	80		
	0.006	STP80NE03L-06	80		
	0.01	STP70NF03L	70	High Freq. DC-DC Converter	
	0.01	STP60NF03L	60	STP60NE03L-10	
	0.012	STP60NE03L-12	60		
	0.0135	STP55NF03L	55		
	0.0155	STP3015L	40		
	0.022	STP40NF03L	40	STP40NE03L-20	
	0.045	STP30NE03L	30		
	0.05	STP20NF03L*	20		
34	0.05	STP22NE03L	22		
	0.008	STP80NS04Z	80	Double Zener Protected MOS	
50	0.015	STP60NS04Z	60	Double Zener Protected MOS	
	0.028	IRFZ40	50		
	0.04	BUZ11	30		
	0.055	BUZ11A	26		
	0.07	BUZ10	23		
	0.1	BUZ71	14		
55	0.12	BUZ71A	13		
	0.0065	STP80NF55-06	80		
60	0.0065	STP80NF55L-06	80		
	0.01	STP80NE06-10	80		
	0.01	STP60NF06L	60	STP60NE03L-10	
	0.016	STP60NE06-16	60		
	0.016	STP60NE06L-16	60		
	0.022	STP55NE06	55		
	0.022	STP55NE06L	50		
	0.028	STP45NE06	45		
	0.028	STP45NE06L	45		
	0.04	STP36NE06	36	STP40N05 - STP36N06	
	0.05	STP30NE06L	30	STP32N06L	
	0.05	STP30NE06	30		
	0.085	STP20NE06L	20		
	0.085	STP20NE06	20		
	0.1	STP14NF06	14		
	0.1	STP16NE06	16	MTP3055E	
	0.12	STP16NE06L	16	STP15N06L	
	0.15	MTP3055E	12		
	75	0.013	STP75NE75	75	
	80	0.024	STP50NE08	50	STP53N08
100	0.015	STP80NF10*	80	Low Gate Charge	
	0.022	STP60NE10	60		
	0.025	STP50NE10L	50	STP45N10L	
	0.028	STP50NE10	50		
	0.035	STP40NF10*	40	Low Gate Charge	
	0.04	STP35NF10*	35	Low Gate Charge	
	0.06	STP33N10	33		
	0.077	IRF540	30		
	0.085	STP22NE10L*	22		
	0.1	STP20NE10	20		
	0.16	STP16N10L	16		
	0.16	STP24NF10*	24	Low Gate Charge	
	0.27	IRF520	10		
	0.27	STP14NF10*	14	Low Gate Charge	
	0.45	STP7NE10	7		
0.45	STP7NE10L	7			
150	0.05	STP40NS15	40		
	0.18	IRF640	18		
200	0.18	STP19NB20	19	IRF640	
	0.4	IRF630	9		
	0.4	STP10NB20	10	IRF630	
	0.8	IRF620	6		
	1.5	STP4N20	4		
	250	0.25	STP16NB25	16	STP15N25
300	1.1	STP6NB25	6		
	0.4	STP12NB30	12	STP9N30	
	0.9	STP7NB30	7		
	2	STP4NB30	4		

# TO-220



V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max (Ω)	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED REMARKS
400	0.55	STP11NB40	10.7	STP10NA40 - IRF740
	0.55	IRF740	10	
	0.9	STP7NB40	7	STP7NA40 - IRF730
	1	IRF730	5.5	
500	1.8	STP5NB40	4.7	IRFZ20 - STP4NA40
	0.35	STP12NM50*	12	New MDmesh
	0.52	STP10NC50	10	PowerMESH II
	0.6	STP10NB50	10	
	0.85	STP8NC50	8	PowerMESH II
	0.85	IRF840	8	
	0.85	STP9NB50	8.6	STP8NA50 - IRF840
	1.5	IRF830	4.5	
	1.5	STP6NB50	5.8	STP5NA50 - IRF830
	1.5	STP5NC50	5	PowerMESH II
	2.8	STP4NB50	3.8	STP3NA50 - IRF820
	3	IRF820	2.5	
600	0.75	STP9NC60	9	PowerMESH II
	0.8	STP9NB60	9	STU9NA60
	1.2	STP6NC60	6	PowerMESH II
	1.2	IRFBC40	6.2	
	1.2	STP7NB60	7.2	
	2	STP5NB60	5.3	
	2.2	STP4NC60	4	PowerMESH II
	2.2	IRFBC30	3.6	
800	3.6	STP3NB60	3.3	
	1.6	STP7NB80	6.5	
	1.9	STP6NB80	5.7	STP6NA80
	2.2	STP5NB80	5	STP5NA80
	3.3	STP4NB80	4	STP4NA80 - BUZ80A - STP3NA80
900	6.5	STP3NB80	2.6	STP2N80
	1.9	STP6NB90	6	STU6NA90
	2.5	STP5NB90	5	STP5NA90
	2.9	STP4NB90	4	
	4.4	STP3NB90	3.4	STP3NA90 - STP4NA90
1000	2.8	STP5NB100	5	
	4.4	STP4NB100	4.2	STP4NA100
	5.5	STP3NB100	3	STP3NA100

# ISOTOP®

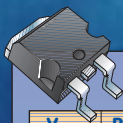


V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max (Ω)	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED REMARKS
100	0.007	STE180NE10	180	STE180N10
200	0.019	STE110NA20	110	STE100N20
	0.022	STE110NS20FD	110	FD = Fast Diode
500	0.085	STE53NA50	53	
	0.13	STE38NB50	38	STE38NA50 - STE30NA50
	0.14	STE38NB50F	38	
600	0.12	STE40NA60	40	STE38N60
900	0.3	STE26NA90	26	STE24N90 - STE22N80
1000	0.375	STE24NA100	24	
	0.77	STE15NA100	15	STE15N100 - STE16N100

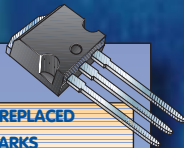
● For tape and reel and other packaging options contact sales offices

\* In development    ✧ Complementary pair

Suffix " L " indicates logic level; Suffix "-1" identifies through-hole version in tube  
Suffix "T4" identifies surface mounting in tape & reel

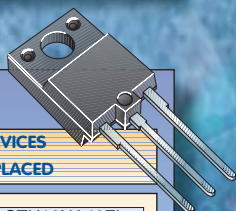


# D<sup>2</sup>PAK I<sup>2</sup>PAK<sup>®</sup>



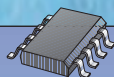
V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max ( $\Omega$ )	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED REMARKS
20	0.009	STB70NF02L	70	High Freq. DC-DC Converter
	0.016	STB36NF02L*	36	High Freq. DC-DC Converter
30	0.006	STB80NE03L-06	80	STB80N03L-06
	0.01	STB70NF03L	70	High Freq. DC-DC Converter
	0.01	STB60NE03L-10	60	STB60N03L-10
	0.01	STB60NF03LT4	60	STB60NE03L-10
	0.01	STB70NFS03L*	70	N-channel plus Schottky Diode
	0.012	STB60NE03L-12	60	
	0.0135	STB55NF03L	55	
	0.0155	STB3015L	40	
	0.016	STB36NF03L	30	High Freq. DC-DC Converter
	0.02	STB40NE03L-20	40	STB40N03L-20
	0.022	STB40NF03L	40	
	0.022	STB3020L	40	
55	0.04	STB80NF03L-04	80	
	0.0065	STB80NF55L-06	80	
60	0.0065	STB80NF55-06	80	
	0.01	STB80NE06-10	80	
75	0.016	STB60NE06L-16	60	
	0.016	STB60NE06-16	60	
	0.022	STB55NE06L	55	
	0.022	STB55NE06	55	
80	0.013	STB75NE75	75	
100	0.024	STB50NE08	50	
	0.015	STB80NF10*	80	
	0.025	STB50NE10L	50	
	0.028	STB50NE10	50	
	0.035	STB40NF10*	40	
	0.04	STB35NF10*	35	
	0.07	STB30N10	30	
	0.085	STB22NE10L*	22	
	0.27	STB14NF10*	14	
	0.16	STB24NF10*	24	
150	0.05	STB40NS15	40	
200	0.18	STB19NB20	19	
	0.4	STB10NB20	10	
250	0.25	STB16NB25	16	
400	0.55	STB11NB40	10	STB10NA40
	0.9	STB7NB40	7	STB7NA40
	1.8	STB5NB40	5	
500	0.52	STB10NC50-1	10	PowerMESH II
	0.75	STB10NB50	10	
	0.85	STB9NB50	8.6	STB8NA50
600	1.5	STB6NB50	6	
	0.75	STB9NC60-1	9	PowerMESH II
	0.8	STB9NB60-1	9	
	1.2	STB7NB60	7.2	STB6NA60
	2	STB5NB60	5	STB4NA60
	3.6	STB3NC60	3	PowerMESH II
800	3.6	STB3NB60	3	
	2.2	STB5NB80	5	
	3.3	STB4NB80	4	

# ISOWATT218™



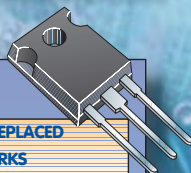
V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max ( $\Omega$ )	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED
400	0.3	STH18NB40FI	10	IRFP350FI STH16NA40FI
500	0.36	STH15NB50FI	9.3	STH15NA50FI - IRFP450FI
600	0.55	STH13NB60FI	7	STH12NA60FI

# SO-8



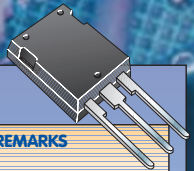
V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max (Ω)	Type	I <sub>D(cont)</sub> (A)	REMARKS	
-40	0.1	STS3DPFS40 <sup>✱</sup>	-3	E = EHD1 1 <sup>st</sup> gen. STripFET™  F = EHD2 2 <sup>nd</sup> gen. STripFET	
-30	0.08	STS4DPF30L <sup>✱</sup>	-4		
	0.08	STS5PF30L	-5		
-20	0.08	STS4PDF30L	-4		
	0.09	STS3DPFS30	-3		
	0.165	STS3DPF30L	-3		
	0.07	STS4DPF20L	-4		
30	0.01	STS12NF30L	12		High Freq. DC-DC Converter
	0.011	STS11NF30L	11		
	0.022	STS8NF30L	8		
	0.022	STS8NFS30L	8		
	0.022	STS7DNF30L	7	DN = DUAL N-channel	
	0.025	STS7NF30L	7		
	0.025	STS6DNF30L	6	High Freq. DC-DC Converter	
	0.02	STS9NF30L	9		
	0.045	STS5DNE30L	5		
	0.065	STS3DNF30L	3.5		
	60	0.135	STS10NF30L	10	DPFS = P-channel plus Schottky
		0.15	STS2DNF30L <sup>✱</sup>	3	
		0.022 / 0.08	STST7C4F30L <sup>✱</sup>	7 / -4	
		0.055	STS5NF60L	5	
0.055		STS4DNF60L	4		
0.08		STS3DNE60L	3		
0.23		STS2DNE60	2		

# TO-247



V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max (Ω)	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED REMARKS
55	0.065	STW80NF55-06	80	
60	0.01	STW80NE06-10	80	
100	0.022	STW60NE10	60	
	0.027	STW55NE10	55	
150	0.05	STW40NS15	50	
200	0.05	STW50NB20	50	
	0.065	STW34NB20	34	STW33N20
	0.075	STW38NB20	38	
400	0.3	STW18NB40	18	IRFP350 - STW16NA40
500	0.25	STW20NB50	20	STW20NA50
	0.27	IRFP460	18	
	0.36	STW15NB50	14.6	STW15NA50 - IRFP450
	0.4	STW14NC50	14	PowerMESH II
	0.4	IRFP450	14	
	0.45	STW14NB50	14	STW12NA50
600	0.36	STW16NB60	16	
	0.55	STW13NB60	12.5	STW12NA60
	0.75	STW10NC60	10	PowerMESH II
	0.65	STW12NB60	12	
800	0.8	STW10NB60	10	STW8NA60 - STW9NA60
	0.8	STW11NB80	10.6	STW9NA80
	1.6	STW8NB80	7.2	STW8NA80
	1.9	STW7NB80	6.5	STW7NA80
900	1	STW9NB90	9.7	STW7NA90
	1.45	STW8NB90	8	
	1.9	STW6NB90	6.5	STW6NA90
	2.5	STW5NB90	5	STW5NA90
1000	1.500	STW8NB100	8	
	2.8	STW6NB100	6	
	4.4	STW5NB100	4.8	STW5NA100

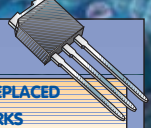
# Max247™



$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	REMARKS
200	0.022	STY100NS20FD	100	FD = Fast Diode
	0.032	STY60NA20	60	
500	0.13	STY34NB50	34	
	0.14	STY34NB50F*	34	
600	0.24	STY25NA60	25	
900	0.54	STY16NA90	16.5	
1000	0.77	STY15NA100	15.4	

# DPAK IPAK®

$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	DEVICES REPLACED REMARKS
-60	0.2	STD10PF06	10	
20	0.013	STD40NF02L*	40	High Freq. DC-DC Converter
	0.02	STD29NF02L*	29	High Freq. DC-DC Converter
30	0.014	STD40NF03L	40	High Freq. DC-DC Converter
	0.016	STD40NE03LT4	40	High Freq. DC-DC Converter
	0.016	STD38NF03L*	38	High Freq. DC-DC Converter
	0.02	STD29NF03L	29	High Freq. DC-DC Converter
	0.013	STD45NF03L	45	
	0.022	STD30NF03L	30	STD20NE03L STD17NE03L
60	0.05	STD16NF03L*	16	
	0.03	STD30NE06L	30	
	0.03	STD30NE06	30	
	0.04	STD20NE06	20	STD20N06
	0.05	STD19NE06L	19	
	0.05	STD19NE06	19	
	0.085	STD16NE06L	16	
	0.085	STD16NE06	16	STD17N06
	0.1	STD12NF06*	12	
	0.1	STD12NE06	12	
	0.12	STD12NE06L	12	
100	0.04	STD25NF10*	25	
	0.085	STD16NE10L*	16	
	0.1	STD16NE10	16	STD12N10
	0.07	STD15NF10*	15	
	0.16	STD12N10L	12	STD10N10L
	0.16	STD10NF10*	10	
	0.27	STD9N10	9	STD8N10 - STD6N10
	0.27	STD9N10L	9	STD6N10L
	0.45	STD5NE10	5	
	0.45	STD5NE10L	5	
200	0.4	STD7NS20	7	
	0.4	STD7NB20	7.5	
	0.8	STD5NB20-1	5	
	1.5	STD4N20-1	4	
250	1.1	STD4NB25	4	
	2	STD2NB25-1	2	
300	0.9	STD5NB30	5	
	2	STD3NB30	3.2	
400	1.8	STD4NB40	3.7	STD4NA40
500	0.8	STD5NM50*	5	New MDmesh™
	1.5	STD4NC50*	4	PowerMESH II
	2.7	STD3NC50	3	PowerMESH II
	2.8	STD3NB50	3	STD3NA50
	5.5	STD2NB50-1	2	
	9	STD1NB50-1	1.5	
600	16	STD1NB50S-1	1	
	2.2	STD3NC60*	3	PowerMESH II
	3.6	STD2NB60	2	STD2NA60
800	8.5	STD1NB60-1/T4	1.6	
	6.5	STD2NB80-1	2	
	20	STD1NB80-1	1	



# SOT-223

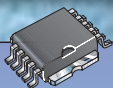


$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	DEVICES REPLACED
30	0.05	STN4NE03L	4	STN3N06 - STN2N06
	0.06	STN4NE03	4	
60	0.12	STN3NE06L	3	
	0.1	STN3NE06	3	
	0.15	STN2NF06	2	
100	0.3	STN2NE06	2	
	0.27	STN2N10	2	STN2N10L
	0.45	STN2NE10L	2	
0.45	STN2NE10	2		
200	1.5	STN1N20	1	
800	20	STN1NB80	0.2	

# Max220™ I-Max220™

$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	DEVICES REPLACED	
200	0.065	STU36NB20	36	STU14NA50	
	500	0.33	STU16NB50I		16
		0.33	STU16NB50		15.6
	0.45	STU13NB50I	13		
	0.45	STU13NB50	13		STU10NA50
600	0.45	STU13NB60I	13		STU9NA60 - STW9NA60
	0.45	STU13NB60	12.6		
	0.65	STU11NB60I*	11.5		
	0.65	STU11NB60	10.7	STW8NA60	
800	0.8	STU10NB80	9.7	STU8NA80	
	0.8	STU10NB80I*	10		
	1.6	STU9NB80	8.5	STU7NA80	
900	1	STU8NB90	8	STU7NA90	
	1	STU8NB90I*	8		
	1.45	STU7NB90	7.4	STU7NA90	
	1.45	STU7NB90I*	7.4		
1000	1.5	STU7NB100I*	7		
	1.5	STU7NB100	7		

# PowerSO-10™



$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	
20	0.0025	STV160NF02L	160	
30	0.0028	STV160NF03L	160	

# SOT23-6L



$V_{DSS}$ (V)	$R_{DS(on)}$ max ( $\Omega$ )	Type	$I_{D(cont)}$ (A)	
-30	0.165	STT3PF30L	-3	
-20	0.155	STT3PF20L	-3	
30	0.065	STT4NF30L	4	

# TO-220FP™ ISOWATT220™

V <sub>DSS</sub> (V)	R <sub>DS(on)</sub> max (Ω)	Type	I <sub>D(cont)</sub> (A)	DEVICES REPLACED REMARKS
60	0.016	STP60NE06-16FP	35	
	0.016	STP60NE06L-16FP	35	
	0.022	STP55NE06LFP	55	
	0.022	STP55NE06FP	50	
	0.028	STP45NE06FP	25	
	0.028	STP45NE06LFP	25	
	0.04	STP36NE06FP	20	
	0.05	STP30NE06LFP	30	
	0.05	STP30NE06FP	30	
	0.085	STP20NE06LFP	13	
	0.085	STP20NE06FP	13	
	0.1	STP14NF06FP*	14	
	0.1	STP16NE06FP	10	
100	0.12	STP16NE06LFP	10	
	0.077	IRF540FI	16	
	0.16	IRF530FI	10	
200	0.27	IRF520FI	7	
	0.18	STP19NB20FP	10	IRF640FI
	0.18	IRF640FP	18	
250	0.4	IRF630FP	9	
	0.4	STP10NB20FP	6	IRF630FI
	1.1	STP6NB25FP	6	
300	0.4	STP12NB30FP	6.5	
	0.9	STP7NB30FP	4	
	2	STP4NB30FP	4	
400	0.55	STP11NB40FP	6	
	0.9	STP7NB40FP	4.4	
	1.8	STP5NB40FP	2.8	
500	0.85	STP8NC50FP	8	PowerMESH II
	0.85	STP9NB50FP	4.5	
	1.5	STP5NC50FP	5	
	1.5	STP6NB50FP	3.4	
	2.2	STP4NC60FP	4	
	2.8	STP4NB50FP	2.3	
600	0.75	STP9NC60FP	9	PowerMESH II
	0.8	STP9NB60FP	5.2	
	1.2	STP6NC60FP	6	PowerMESH II
	1.2	STP7NB60FP	4.1	
	2	STP5NB60FP	3	
	3.6	STP3NB60FP	2.1	
800	1.6	STP7NB80FP	7	
	1.9	STP6NB80FP	6	STP6NA80FP
	2.2	STP5NB80FP	3	
	3.3	STP4NB80FP	2.3	
	6.5	STP3NB80FP	1.6	
	900	1.9	STP6NB90FP	6
2.5		STP5NB90FP	5	
2.9		STP4NB90FP	2.5	
4.4		STP3NB90FP	2	
1000	2.8	STP5NB100FP	5	
	4.4	STP4NB100FP	4.5	
	5.5	STP3NB100FP	1.8	STP3NA100FP / STP3N100FI

- For tape and reel and other packaging options contact sales offices
- \* In development
- Suffix " L " indicates logic level
- Suffix "-1" identifies through-hole version in tube
- Suffix "T4" identifies surface mounting in tape & reel

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