

Power MOS FET Lineup [Characteristics Chart]

6. L²- π -MOS III (V_{DSS}=60~100V type)

Low Voltage Series Operable at Logic Level.

Application	Type No.	Maximum ratings			Package	R _{DS(ON)}				R _{DS(ON)}				V _{th} (V) (I _b =1mA)
		I _b (A)	V _{GS} (V)	P _D (W)		(Ω)		V _{GS} (V)	I _b (A)	(Ω)		V _{GS} (V)	I _b (A)	
						TYP.	MAX.			TYP.	MAX.			
DC/DC converter Solenoid drive large-current switching	2SK1078	0.8	60	0.5	POWER-MINI	0.40	0.55	10	0.4	0.75	1.1	4	0.4	0.8~2.0
	2SK940	0.8	60	0.9	TO-92MOD	0.40	0.55	10	0.4	0.75	1.1	4	0.4	0.8~2.0
	2SK1112	5	60	20	POWER-MOLD	0.12	0.16	10	2.5	0.20	0.30	4	1.3	0.8~2.0
	2SJ183	-5	-60	20	POWER-MOLD	0.30	0.35	-10	-2.5	0.45	0.70	-4	-1.3	-0.8~-2.0
	2SK1114	12	60	40	TO-220AB	0.055	0.07	10	6	0.08	0.13	4	3	0.8~2.0
	2SK1344	12	60	30	TO-220(NIS)	0.055	0.07	10	6	0.08	0.13	4	3	0.8~2.0
	2SK1768	12	60	1.3	NPM	0.055	0.07	10	6	0.08	0.13	4	3	0.8~2.0
	2SK1115	20	60	60	TO-220AB	0.042	0.055	10	10	0.064	0.090	4	5	0.8~2.0
	2SK1345	20	60	40	TO-220(NIS)	0.042	0.055	10	10	0.064	0.090	4	5	0.8~2.0
	2SK942	25	60	75	TO-220AB	0.036	0.046	10	12	0.057	0.080	4	6	0.8~2.0
	2SK943	25	60	40	TO-220(NIS)	0.036	0.046	10	12	0.057	0.080	4	6	0.8~2.0
	2SK1379	50	60	150	TO-3P(N)	0.011	0.017	10	25	0.016	0.025	4	25	0.8~2.0
	2SK1380	60	60	200	TO-3P(L)	0.0065	0.011	10	30	0.009	0.015	4	30	0.8~2.0
	2SK1079	0.6	100	0.5	POWER-MINI	0.95	1.3	10	0.3	1.2	1.8	4	0.3	0.8~2.0
	2SK941	0.6	100	0.9	TO-92MOD	0.95	1.3	10	0.3	1.2	1.8	4	0.3	0.8~2.0
	2SK1347	20	100	75	TO-220AB	0.068	0.085	10	10	0.10	0.15	4	5	0.8~2.0
	2SK1348	20	100	40	TO-220(NIS)	0.068	0.085	10	10	0.10	0.15	4	5	0.8~2.0
	2SK1116	25	100	100	TO-220AB	0.045	0.058	10	12	0.070	0.10	4	6	0.8~2.0
	2SK1349	25	100	45	TO-220(NIS)	0.045	0.058	10	12	0.070	0.10	4	6	0.8~2.0
	2SK1381	50	100	150	TO-3P(N)	0.025	0.032	10	25	0.031	0.046	4	25	0.8~2.0
2SK1382	60	100	200	TO-3P(L)	0.015	0.020	10	30	0.020	0.029	4	30	0.8~2.0	
2SK1113	3	120	20	POWER-MOLD	0.33	0.42	10	1.5	0.40	0.60	4	0.8	0.8~2.0	

7. π -MOS Series

Toshiba's π -MOS standard series has gained wide acceptance in the market. A varied lineup includes withstand voltages ranging from 60V to 900V.

Application	Type No.		Maximum ratings			Package	R _{DS(ON)}				V _{th} (V) I _b =1mA ① 100mA ② 250 μ A ③ 10mA	
	N-channel	P-channel	I _b (A)	V _{GS} (V)	P _D (W)		(Ω)		V _{GS} (V)	I _b (A)		
							TYP.	MAX.				
Power amplifier for audio use	2SK2162		1	180	20	POWER-MOLD	2.8	5.0	10	0.6	③0.8~2.8	
	2SK2013		1	180	25	TO-220(NIS)	2.8	5.0	10	0.6	③0.8~2.8	
		2SJ338	-1	-180	20	POWER-MOLD	2.0	5.0	-10	-0.6	③-0.8~-2.8	
		2SJ313	-1	-180	25	TO-220(NIS)	2.0	5.0	-10	-0.6	③-0.8~-2.8	
		2SK1529	2SJ200	10	180	120	TO-3P(N)	0.41	0.83	10	6	①-0.8~-2.8
		2SK1530	2SJ201	12	200	150	TO-3P(L)	0.23	0.63	10	8	①-0.8~-2.8
DC/DC converter Motor drive	2SK357		5	150	40	TO-220AB	0.6	0.9	10	3	1.5~3.5	
	2SK358			250	40		0.7	1.0	10	3	1.5~3.5	
	2SK525		10	150	40	TO-220(IS)	0.20	0.28	10	5	1.5~3.5	
	2SK526			250	40		0.4	0.6	10	5	1.5~3.5	
	2SK532		12	60	40	TO-220(IS)	0.070	0.085	10	6	1.5~3.5	
		2SJ147		-60	-40	TO-220(IS)	0.17	0.20	-10	-6	-1.5~-3.5	
	2SK387			150	150	TO-3P(L)	0.12	0.18	10	10	1.5~3.5	
	2SK388		15	250	150	TO-3P(L)	0.2	0.25	10	10	1.5~3.5	
	2SK572			150	100	TO-3P(N)	0.12	0.18	10	10	1.5~3.5	
	○2SK578		15	150	120	TO-3P(L)	0.15	0.22	10	15	1.5~3.5	
	2SK573			250	100	TO-3P(N)	0.24	0.30	10	10	1.5~3.5	
	○2SK447		20	250	150	TO-3P(L)	0.14	0.24	10	15	1.5~3.5	
○2SK1641		250		150	TO-3P(N)	0.18	0.23	10	10	1.5~3.5		

○: Built in high-speed diode type

Application	Type No.		Maximum ratings			Package	R _{os} (ON)				V _{in} (V) I _D =1mA ① 100mA ② 250μA ③ 10mA	
			I _b (A)	V _{oss} (V)	P _o (W)		r _{os} (Ω)		V _{os} (V)	I _b (A)		
	TYP.	MAX.										
AC100V input Switching power supply	2SK945		1	400	10	POWER-MOLD	3.6	5.0	10	0.5	1.5~3.5	
	2SK528		2	400	30	TO-220 (IS)	1.6	2.2	10	1	1.5~3.5	
	2SK529			450	30		1.8	2.6	10	1	1.5~3.5	
	2SK530		5	400	40	TO-220 (IS)	1.0	1.4	10	3	1.5~3.5	
	2SK531			450	40		1.1	1.6	10	3	1.5~3.5	
	2SK1377		5.5	400	40	TO-220 (NIS)	0.8	1.2	10	3	1.5~3.5	
	2SK1378		10	400	125	TO-220AB	0.35	0.55	10	5	②2.0~4.0	
	2SK1642		9	400	40	TO-220 (NIS)	0.35	0.55	10	5	②2.0~4.0	
	2SK385		10	400	120	TO-3P (L)	0.45	0.6	10	5	1.5~3.5	
	2SK386			450	120		0.5	0.7	10	5	1.5~3.5	
	○2SK1513		8	500	150	TO-3P (L)	0.55	0.75	10	8	③2.5~4.5	
	○2SK1029		10	500	200	TO-3P (L)	0.35	0.50	10	10	③2.5~4.5	
	○2SK1333		15	500	200	TO-3P (L)	0.30	0.40	10	15	③2.5~4.5	
	AC220V input Switching power supply	2SK537		1	900	60	TO-220AB	7.0	9.0	10	0.5	1.5~3.5
2SK791			3	850	100	TO-220AB	3.3	4.5	10	1.5	1.5~3.5	
2SK792				900	100	TO-220AB	3.3	4.5	10	1.5	1.5~3.5	
2SK1356				900	40	TO-220 (NIS)	3.3	4.3	10	1.5	1.5~3.5	
2SK538				900	100	TO-3P (N)	3.3	4.5	10	1.5	1.5~3.5	
2SK1650			4	900	125	TO-3P (N)	3.3	4.3	10	1.5	1.5~3.5	
2SK793			5	850	150	TO-3P (N)	2.1	2.5	10	3	1.5~3.5	
2SK794				900	150	TO-3P (N)	2.1	2.5	10	3	1.5~3.5	
2SK539				900	150	TO-3P (L)	2.1	2.5	10	3	1.5~3.5	
2SK1362			5	900	80	TO-3P (IS)	2.1	2.5	10	3.0	1.5~3.5	
2SK1649			6	900	150	TO-3P (N)	2.1	2.5	10	3.0	1.5~3.5	
DC/DC converter Motor drive	2SK672		10	60	40	TO-220AB	0.130	0.20	10	5	1.5~3.5	
	2SK673		15	60	75	TO-220AB	0.080	0.120	10	8	1.5~3.5	
	2SK674		25	60	100	TO-220AB	0.040	0.060	10	15	1.5~3.5	
	2SK1346		25	60	40	TO-220 (NIS)	0.040	0.060	10	15	1.5~3.5	
	2SK849		40	60	150	TO-3P (N)	0.030	0.045	10	20	1.5~3.5	
DC/DC converter Motor drive solenoid capacity switching	2SK888		15	100	75	TO-220AB	0.140	0.180	10	8	1.5~3.5	
	2SK889		27	100	125	TO-220AB	0.070	0.085	10	15	1.5~3.5	
	2SK850		35	100	150	TO-3P (N)	0.045	0.060	10	20	1.5~3.5	
	2SK890		10	200	75	TO-220AB	0.25	0.40	10	5	1.5~3.5	
	2SK1350		15	200	45	TO-220 (NIS)	0.14	0.18	10	10	1.5~3.5	
	2SK891		18	200	125	TO-220AB	0.14	0.18	10	10	1.5~3.5	
	2SK851		30	200	150	TO-3P (N)	0.07	0.085	10	16	2.0~4.0	
	2SK944		22	250	150	TO-3P (N)	0.12	0.15	10	11	1.5~3.5	
	2SK892		2.5	500	40	TO-220AB	2.5	3.0	10	1	1.5~3.5	
AC115V input switching power supply	2SK893		5	500	75	TO-220AB	1.3	1.5	10	2.5	1.5~3.5	
	2SK1351		5	500	40	TO-220 (NIS)	1.3	1.5	10	2.5	1.5~3.5	
	2SK1352		7	500	45	TO-220 (NIS)	0.65	0.85	10	4	1.5~3.5	
	2SK894		8	500	125	TO-220AB	0.65	0.85	10	4	1.5~3.5	
	2SK1642		9	400	45	TO-220 (NIS)	0.35	0.55	10	5	2.0~4.0	
	2SK643		10	500	125	TO-3P (N)	0.60	0.80	10	5	2.0~4.0	
	2SK644		10	450	125	TO-3P (N)	0.70	1.0	10	5	2.0~4.0	
	2SK895		12	500	125	TO-3P (N)	0.40	0.55	10	6	1.5~3.5	
	2SK896		12	500	125	TO-3P (N)	0.45	0.60	10	6	1.5~3.5	
	2SK694		12	400	150	TO-3P (L)	0.40	0.50	10	7	2.0~4.0	
	2SK693		13	450	150	TO-3P (L)	0.30	0.40	10	7	2.0~4.0	
	2SK678		13	500	150	TO-3P (L)	0.30	0.40	10	7	2.0~4.0	
	2SK788		13	500	150	TO-3P (N)	0.40	0.50	10	7	2.0~4.0	
	2SK789		15	450	150	TO-3P (N)	0.30	0.40	10	7	2.0~4.0	
	2SK790		15	500	150	TO-3P (N)	0.30	0.40	10	7	2.0~4.0	
	2SK858		2	600	40	TO-220 (NIS)	2.9	4.0	10	1	2.0~4.0	
	2SK1769		2	600	15	NPM	2.9	4.0	10	1	2.0~4.0	
	2SK1117		6	600	100	TO-220AB	0.95	1.25	10	3	1.5~3.5	
	2SK1118		6	600	45	TO-220 (NIS)	0.95	1.25	10	3	1.5~3.5	
	2SK1213		6	600	125	TO-3P (N)	0.95	1.25	10	3	1.5~3.5	
	2SK1723		12	600	150	TO-3P (N)	0.56	0.65	10	6	1.5~3.5	
	Solenoid drive large-current switching	2SK856		45	60	100	TO-220AB	0.024	0.030	10	25	1.5~3.5
		2SK1124		45	60	125	TO-3P (N)	0.022	0.030	10	25	1.5~3.5

① Built in high-speed diode type