

## POWER TRANSISTORS

### HIGH GAIN BIPOLAR DARLINGTONS

I <sub>C</sub> (A)	V <sub>CB0</sub> (V)	V <sub>CEO</sub> (V)	P <sub>tot</sub> (W)	Package	Type		h <sub>FE</sub> min	@ I <sub>C</sub> (A)	/ V <sub>CE</sub> (V)	V <sub>CEsat</sub> (V)	@ I <sub>C</sub> (A)	/ I <sub>B</sub> (mA)
					NPN	PNP						
2	60	60	50	SOT 82 (1)	SGS 110	SGS 115	1000	1	4	2.5	2	8
2	80	80	50	SOT 82 (1)	SGS 111	SGS 116	1000	1	4	2.5	2	8
2	100	100	50	SOT 82 (1)	SGS 112	SGS 117	1000	1	4	2.5	2	8
5	60	60	65	SOT 82 (1)	SGS 120	SGS 125	1000	3	3	2	3	12
5	80	80	65	SOT 82 (1)	SGS 121	SGS 126	1000	3	3	2	3	12
5	100	100	65	SOT 82 (1)	SGS 122	SGS 127	1000	3	3	2	3	12
6	60	60	60	SOT 82 (1)	BD 331	BB 332	750	3	3	2	3	12
6	80	80	60	SOT 82 (1)	BD 333	BD 334	750	3	3	2	3	12
6	100	100	60	SOT 82 (1)	BD 335	BD 336	750	3	3	2	3	12
8	40	40	65	SOT 82 (1)	SGS 6386		1000	3	3	2	3	6
8	60	60	65	SOT 82 (1)	SGS 130	SGS 135	1000	4	4	2	4	16
8	80	80	60	TO 220	BDX 53 B	BDX 54 B	750	3	3	2	3	12
8	80	80	65	SOT 82 (1)	SGS 131	SGS 136	1000	4	4	2	4	16
8	80	80	70	TO 220	TIP 131	TIP 136	1000	4	4	2	4	16
8	80	80	80	TO 220	TIP 101	TIP 106	1000	3	4	2	3	16
8	100	100	60	TO 220	BDX 53 C	BDX 54 C	750	3	3	2	3	12
8	100	100	65	SOT 82 (1)	SGS 132	SGS 137	1000	4	4	2	4	16
8	100	100	70	TO 220	TIP 132	TIP 137	1000	4	4	2	4	16
8	100	100	80	TO 220	TIP 102	TIP 107	1000	3	4	2	3	6
10	60	60	65	SOT 82	SGS 6387		1000	5	3	2	5	10
10	60	60	65	TO 220	2N 6387		1000	5	3	2	5	10
10	80	80	65	SOT 82	SGS 6388		1000	5	3	2	5	10
10	80	80	65	TO 220	2N 6388		1000	5	3	2	5	10
10	80	80	125	SOT 93	TIP 141	TIP 146	1000	5	4	3	10	40
10	100	100	125	SOT 93	TIP 142	TIP 147	1000	5	4	3	10	40
12	80	80	80	TO 220	BDW 93 B	BDW 94 B	750	5	3	2	5	20
12	100	100	80	TO 220	BDW 93 C	BDW 94 C	750	5	3	2	5	20
12	160	140	80	TO 220	SGSD 93E		1000	3	3	2	10	20
12	180	160	80	TO 220	SGSD 93F		1000	3	3	2	10	20
12	200	180	80	TO 220	SGSD 93G		1000	3	3	2	10	20
20	80	80	160	TO 3	2N 6283	2N 6286	750	10	3	3	20	200
25	80	80	130	SOT 93	SGSD 100	SGSD 200	300	20	3	1.75	10	400
30	60	60	200	TO 3	MJ 11012	MJ 11011	1000	20	5	4	30	300
30	90	90	200	TO 3	MJ 11014	MJ 11013	1000	20	5	4	30	300

(1) Also available in SOT 194 package for SMD.

### MOSFET TRANSISTORS FOR AUTOMOTIVE APPLICATIONS

V <sub>(BR)</sub> DSS (V)	R <sub>DS(on)</sub> max (Ω)	@ I <sub>D</sub> (A)	Package	Type	I <sub>D</sub> max (A)	P <sub>tot</sub> (W)	g <sub>fs</sub> min (mho)	C <sub>iss</sub> max (pF)
50	0.13	5	SOT 194	SGSP222*	10	50	3	550
50	0.10	9	TO 220	BUZ71	14	40	3	650
50	0.10	9	ISOWATT 220	BUZ71 F I	12	30	3	650
50	0.08	13	TO 220	BUZ10	20	70	8	700 §
50	0.04	15	TO 220	BUZ11	30	75	4	2000
50	0.04	15	ISOWATT 220	BUZ11 F I	20	35	4	2000
50	0.033	20	TO 218	SGSP492	40	150	10	2800
60	0.15	6	TO 220	MTP3055A	12	40	4.5	500
60	0.15	6	ISOWATT 220	MTP3055A F I	10	30	4.5	500
60	0.08	22	TO 218	IRFP153	34	150	13	3000
60	0.08	22	ISOWATT 218	IRFP153 F I	21	65	13	3000
60	0.055	22	TO 218	IRFP151	40	150	13	3000
60	0.055	22	ISOWATT 218	IRFP151 F I	26	65	13	3000
60	0.04	15	TO 220	BUZ11S2	30	75	4	2000
60	0.04	15	ISOWATT 220	BUZ11S2 F I	20	35	4	2000
60	0.028	20	TO 218	MTH40N06	40	150	10	5000
60	0.028	20	ISOWATT 218	MTH40N06 F I	26	65	10	5000

§ : Typical value.  
NOTE : For internal schematic diagrams see following page.

(1) Also available in SOT 194 package for SMD.

**POWER MOS**

V <sub>(BR) DSS</sub> (V)	R <sub>DS (on)</sub> max (Ω)	@ I <sub>D</sub> (A)	Package	Type	I <sub>D</sub> max (A)	P <sub>tot</sub> (W)	g <sub>fs</sub> min (mho)	C <sub>iss</sub> max (pF)
60	0.15	6	ISOWATT 220	MTP3055AFI	10	30	4.5	500
60	0.15	7.5	TO 220	STLT20**	15	75	5	480
60	0.15	7.5	ISOWATT 220	STLT20FI**	10	30	5	480
60	0.13	8	TO 220	SGSP321	16	75	3	550
60	0.08	20	TO 3	IRF153	33	150	9	3000
60	0.08	22	TO 218	IRFP153	34	150	13	3000
60	0.08	22	ISOWATT 218	IRFP153FI	21	65	13	3000
60	0.08	12.5	TO 220	STLT30**	25	100	9	1200
60	0.06	14	TO 220	SGSP381	28	100	5	1400
60	0.05	15	TO 218	SGSP481	30	125	5	1400
60	0.055	20	TO 3	IRF151	40	150	9	3000
60	0.055	22	TO 218	IRFP151	40	150	13	3000
60	0.055	22	ISOWATT 218	IRFP151FI	26	65	13	3000
60	0.04	15	TO 220	BUZ11S2	30	75	4	2000
60	0.04	15	ISOWATT 220	BUZ11S2FI	20	35	4	2000
60	0.033	20	TO 218	SGSP491	40	150	10	2800
60	0.033	20	TO 3	SGSP591	40	150	10	2800
60	0.028	20	TO 218	MTH40N06	40	150	10	5000
60	0.028	20	ISOWATT218	MTH40N06FI	26	65	10	5000
80	0.36	5.6	TO 220	IRF523	8	60	2.7	600
80	0.36	5.6	ISOWATT 220	IRF523FI	6	30	2.7	600
80	0.27	5.6	TO 220	IRF521	9.2	60	2.7	600
80	0.27	5.6	ISOWATT 220	IRF521FI	7	30	2.7	600
80	0.23	8.3	TO 220	IRF533	12	79	5.1	800
80	0.23	8.3	ISOWATT 220	IRF533FI	8	35	5.1	800
80	0.16	8.3	TO 220	IRF531	14	79	5.1	800
80	0.16	8.3	ISOWATT220	IRF531FI	9	35	5.1	800
80	0.1	17	TO 3	IRF143	25	125	8.7	1600
80	0.1	17	TO 220	IRF543	25	125	8.7	1600
80	0.1	17	ISOWATT 220	IRF543FI	14	40	8.7	1600
80	0.1	11	TO 220	SGSP362	22	100	4.5	1200
80	0.1	12.5	TO 218	SGSP462	25	125	4.5	1200
80	0.077	17	TO 3	IRF141	28	125	8.7	1600
80	0.077	17	TO 220	IRF541	28	125	8.7	1600
80	0.077	17	ISOWATT 220	IRF541FI	15	40	8.7	1600
80	0.05	17.5	TO 218	SGSP472	35	150	9	2200
100	1.4	1.2	SOT 82	SGSP201*	2	18	0.5	125
100	1.4	1.2	TO 220	SGSP301	2	18	0.5	125
100	0.6	3	TO 220	SGSP351	6	50	1	250
100	0.36	5.6	TO 220	IRF522	8	60	2.7	600
100	0.36	5.6	ISOWATT 220	IRF522FI	6	30	2.7	600
100	0.3	5.5	TO 220	SGSP311	11	75	2	480
100	0.27	5.6	TO 220	IRF520	9.2	60	2.7	600
100	0.27	5.6	ISOWATT 220	IRF520FI	7	30	2.7	600
100	0.25	5	TO 220	BUZ72A	9	40	2.7	600
100	0.23	8.3	TO 220	IRF532	12	79	5.1	800
100	0.23	8.3	ISOWATT 220	IRF532FI	8	35	5.1	800
100	0.2	6	TO 220	BUZ20	12	75	2.7	2000
100	0.16	8.3	TO 220	IRF530	14	79	5.1	800
100	0.16	8.3	ISOWATT 220	IRF530FI	9	35	5.1	800
100	0.15	9	TO 220	SGSP361	18	100	4.5	1200
100	0.15	10	TO 218	SGSP461	20	125	4.5	1200
100	0.1	9	TO 220	BUZ21	19	75	4	2000
100	0.1	9	TO 3	BUZ25	19	78	4	2000
100	0.1	17	TO 3	IRF142	25	125	8.7	1600
100	0.1	17	TO 220	IRF542	25	125	8.7	1600
100	0.1	17	ISOWATT 220	IRF542FI	14	40	8.7	1600
100	0.08	20	TO 3	IRF152	33	150	9	3000
100	0.08	22	TO 218	IRFP152	34	150	13	3000
100	0.08	22	ISOWATT 218	IRFP152FI	21	65	13	3000
100	0.077	17	TO 3	IRF140	28	125	8.7	1600
100	0.077	17	TO 220	IRF540	28	125	8.7	1600
100	0.077	17	ISOWATT 220	IRF540FI	15	40	8.7	1600
100	0.075	15	TO 218	SGSP471	30	150	9	2200
100	0.055	20	TO 3	IRF150	40	150	9	3000

\* Also available in SOT 194 package for SMD.

\*\* Logic level V<sub>GS</sub> threshold.