

TABLE 8 : NPN/PNP SUPER E-LINE TYPES

These devices offer the ultimate performance for TO-92 style package. They have been designed to operate and provide useful gain at current levels up to 6A with power dissipation capabilities in excess of 1W at 25°C ambient temperature.

Type	V_{CBO}	V_{CEO}	Max. cont	Max.	Max. V_{at} $V_{CE(sat)}$			h_{FE} at		Min. f_T at		P_{tot} at $T_{amb} = 25^{\circ}C$	Complement
	V	V	I_C A	I_{CM} A	V	I_C A	I_B A	Min.	I_C A	MHz	I_C mA		
NPN													
ZTX653§	120	100	2	6	0.5	2	0.2	25	2	140	100	1000	ZTX753
ZTX652	100	80	2	6	0.5	2	0.2	25	2	140	100	1000	ZTX752
ZTX651§	80	60	2	6	0.5	2	0.2	40	2	140	100	1000	ZTX751
ZTX650	60	45	2	6	0.5	2	0.2	40	2	140	100	1000	ZTX750
ZTX649§	35	25	2	6	0.5	2	0.2	75	2	150	100	1000	ZTX749
PNP													
ZTX753§	120	100	2	6	0.5	2	0.2	25	2	100	100	1000	ZTX653
ZTX752	100	80	2	6	0.5	2	0.2	25	2	100	100	1000	ZTX652
ZTX751§	80	60	2	6	0.5	2	0.2	40	2	100	100	1000	ZTX651
ZTX750	60	45	2	6	0.5	2	0.2	40	2	100	100	1000	ZTX650
ZTX749§	35	25	2	6	0.5	2	0.2	75	2	100	100	1000	ZTX649

TABLE 9 : NPN HIGH GAIN SUPER E-LINE

A range of high gain, high performance, medium power devices designed to replace Darlington transistors in applications where low saturation voltages are required. Ideally suited for battery-driven applications.

Type	V_{CBO} V_{CEO} V	Max. cont I_C A	Max. I_{CM} A	Max. $V_{CE(sat)}$ at			h_{FE} at		Min. f_T at		P_{tot} at $T_{amb} = 25^\circ C$ mW
				V	I_C mA	I_B mA	Min.	I_C mA	MHz	I_C mA	
ZTX694B	120	0.5	1	0.5	400	5	400	200	150	50	1000
ZTX692B	70	1	2	0.5	1000	10	400	500	150	50	1000
ZTX690B	45	2	6	0.5	2000	40	400	1000	150	50	1000
ZTX689B	20	2	6	0.5	2000	10	400	2000	150	50	1000

§Also available with centre collector lead form option. See centre collector section for details.

SEMICONDUCTOR DICE

NPN MEDIUM POWER

Dice type	V _{CBO} Min.	V _{CEO} Min.	I _{CBO} Max. at V _{CB}		h _{FE} at I _C			V _{CE}	V _{CE(sat)} at I _C		Max. I _B	f _T Min.	C _{OBO} Max.	Chip geometry
	Volts	Volts	nA	Volts	Min.	Max.	mA	Volts	Volts	mA	mA	MHz	pF	
ZTX653	120	100	100	100	100	300	500	2	0.3	1000	100	140	—	G10
ZTX453	120	100	100	100	40	200	150	10	0.7	150	15	150	15	G9
ZT91	120	100	100	120	40	120	200	10	1.2	200	20	60	25	G9
2N1893	120	80	10	90	40	120	150	10	0.5	150	15	50	15	G9
ZTX652	100	80	100	80	100	300	500	2	0.3	1000	100	140	—	G10
ZTX452	100	80	100	80	40	150	150	10	0.7	150	15	150	15	G9
MPSA06	80	80	100	80	50	—	100	1	0.25	100	10	100	—	G9
ZTX651	80	60	100	60	100	300	500	2	0.3	1000	100	140	—	G10
ZTX451	80	60	100	60	50	150	150	10	0.35	150	15	150	15	G9
BFY50	80	35	500	80	30	—	150	10	0.20	150	15	60	12	G9
2N1613	75	50*	10	60	40	120	150	10	1.5	150	15	—	25	G9
2N1711	75	50*	10	60	100	300	150	10	1.5	150	15	70	15	G9
ZT90	60	60	10	60	60	200	200	10	0.7	200	20	60	25	G9
MPSA05	60	60	100	60	50	—	100	1	0.25	100	10	100	—	G9
ZTX650	60	45	100	45	100	300	500	2	0.3	1000	100	140	—	G10
ZTX450	60	45	100	45	100	300	150	10	0.25	150	15	150	15	G9
BFY51	60	30	500	60	40	—	150	10	0.35	150	15	50	12	G9
BC337A	50†	45	100§	45	100	250	100	1	0.7	500	50	100	12	G9
BC337B	50†	45	100§	45	160	400	100	1	0.7	500	50	100	12	G9
BC337C	50†	45	100§	45	250	630	100	1	0.7	500	50	100	12	G9
ZTX449	50	30	100	40	100	300	500	2	0.5	1000	100	150	15	G11
BFY52	40	20	500	40	60	—	150	10	0.35	150	15	50	12	G9
ZTX649	35	25	100	30	100	300	1000	2	0.3	1000	100	150	50	G10

†V_{CES} §I_{CES} *V_{CER}

PNP MEDIUM POWER

Dice type	V _{CBO} Min.	V _{CEO} Min.	I _{CBO} Max. at V _{CB}		h _{FE} at I _C			V _{CE}	V _{CE(sat)} at I _C		Max. I _B	f _T Min.	C _{OBO} Max.	Chip geometry
	Volts	Volts	nA	Volts	Min.	Max.	mA	Volts	Volts	mA	mA	MHz	pF	
ZTX753	120	100	100	100	100	300	500	2	0.3	1000	100	100	—	G12
ZTX553	120	100	100	100	40	200	150	10	0.25	150	15	150	12	G11
ZTX752	100	80	100	80	100	300	500	2	0.3	1000	100	100	—	G12
ZTX552	100	80	100	80	40	150	150	10	0.7	150	15	150	25	G11
MPSA56	80	80	100	80	50	—	100	1	0.25	100	10	100	—	G11
ZTX751	80	60	100	60	100	300	500	2	0.3	1000	100	100	—	G12
ZTX551	80	60	100	60	50	150	150	10	0.35	150	15	150	25	G11
MPSA55	60	60	100	60	50	—	100	1	0.25	100	10	100	—	G11
ZTX750	60	45	100	45	100	300	500	2	0.3	1000	100	100	—	G12
ZTX550	60	45	100	45	100	300	150	10	0.25	150	15	150	25	G11
BC327A	50†	45	100§	45	100	250	100	1	0.7	500	50	100*	12	G11
BC327B	50†	45	100§	45	160	400	100	1	0.7	500	50	100*	12	G11
BC327C	50†	45	100§	45	250	630	100	1	0.7	500	50	100*	12	G11
ZTX749	35	25	100	30	100	300	1000	2	0.3	1000	100	100	100	G12
ZTX549	35	25	100	30	100	300	500	2	0.5	1000	100	100	25	G11

†V_{CES} §I_{CES} *Typical values