Type	Construction	P_C Max. (mW)	Typical f_T or *f_1 † fab (MHz)	Absolute Max. Ratings V_{CBO} (V)	V_{CEO} (V)	V_{EBO} (V)	I_C (mA)	Typical h_{FE} at (mA) (or *h_{fe})	Max I_{CBO} at V_{CB} μA	V	Application	Base Ref.
I. T. T. *(Continued)*												
Current Types (Continued)												
BCY78A	PE	300	200	−32	−32	−5	200	180 at 2	0.02	25		2
BCY78B	PE	300	200	−32	−32	−5	200	260 at 2	0.02	25		2
BCY78C	PE	300	200	−32	−32	−5	200	360 at 2	0.02	25		2
BCY78D	PE	300	200	−32	−32	−5	200	500 at 2	0.02	25	Amplifiers	2
BCY79A	PE	300	200	−45	−45	−5	200	180 at 2	0.02	35		2
BCY79B	PE	300	200	−45	−45	−5	200	260 at 2	0.02	35		2
BCY79C	PE	300	200	−45	−45	−5	200	360 at 2	0.02	35		2
2N3963	PE	300	220	−80	−80	−5	200	275 at 2	0.01	70		2
BCY71	PE	300	250	−45	−45	−5	200	50 at 2	0.01	50	Switching	2
BCY72	PE	300	250	−25	−25	−5	200	50 at 2	0.01	25		2
2N3965	PE	300	250	−60	−60	−5	200	425 at 2	0.01	50	Amplifiers	2
2N2894	PE	360	400	−12	−12	−4	200	25 at 100	0.08	6		2
2N3209	PE	360	400	−20	−20	−4	200	15 at 100	0.08	6	High speed switching	2
BC192	PE	400	100	−25	−25	−5	500	90 at 50	0.1	20		2
BSV46	PE	400	200	−70	−70	−5	500	35 at 10	0.02	50		2
BSV47A	PE	400	200	−60	−60	−5	500	40 at 10	0.02	50		2
BSV47B	PE	400	200	−60	−60	−5	500	100 at 10	0.02	50		2
BSV48A	PE	400	200	−60	−40	−5	500	35 at 10	0.02	50	Switching	2
BSV48B	PE	400	200	−60	−40	−5	500	75 at 10	0.02	50		2
BSV49A	PE	400	200	−30	−30	−5	500	35 at 10	0.025	20		2
BSV49B	PE	400	200	−30	−30	−5	500	75 at 10	0.025	20		2
BSW72	PE	400	200	−40	−25	−5	500	30 at 10	0.1	30		2
BSW73	PE	400	200	−40	−25	−5	500	70 at 10	0.1	30		2
BSW74	PE	400	200	−75	−40	−5	500	35 at 10	0.01	50		2
BSW75	PE	400	200	−75	−40	−5	500	75 at 10	0.01	50		2
2N2906	PE	400	200	−60	−40	−5	500	35 at 10	0.02	50	High speed switching	2
2N2906A	PE	400	200	−60	−60	−5	500	40 at 10	0.01	50		2
2N2907	PE	400	200	−60	−40	−5	500	75 at 10	0.02	50		2
2N2907A	PE	400	200	−60	−60	−5	500	100 at 10	0.01	50		2
BSV42	PE	600	200	−70	−70	−5	500	35 at 10	0.02	50		64
BSV43A	PE	600	200	−60	−60	−5	500	40 at 10	0.02	50		64
BSV43B	PE	600	200	−60	−60	−5	500	100 at 10	0.02	50		64
BSV44A	PE	600	200	−60	−40	−5	500	35 at 10	0.02	50	Switching	64
BSV44B	PE	600	200	−60	−40	−5	500	75 at 10	0.02	50		64
BSV45A	PE	600	200	−30	−30	−5	500	35 at 10	0.025	20		64
BSV45B	PE	600	200	−30	−30	−5	500	75 at 10	0.025	20		64
BC327	PE	625	—	—	−45	−5	800	350 at 1	—	—		64
BC328	PE	625	—	—	−25	−5	800	350 at 1	—	—		64
BC160-6	PE	750	—	—	−40	−5	1A	70 at 1	—	—		2
BC160-10	PE	750	—	—	−40	−5	1A	110 at 1	—	—		2
BC160-16	PE	750	—	—	−40	−5	1A	175 at 1	—	—		2
BC161-6	PE	750	—	—	−60	−5	1A	70 at 1	—	—		2
BC161-10	PE	750	—	—	−60	−5	1A	110 at 1	—	—	Amplifiers	2
BC161-16	PE	750	—	—	−60	−5	1A	175 at 1	—	—		2
BC360-6	PE	800	—	—	−40	−5	500	70 at 5	—	—		2
BC360-10	PE	800	—	—	−40	−5	500	110 at 5	—	—		2
BC360-16	PE	800	—	—	−40	−5	500	175 at 5	—	—		2
BC361-6	PE	800	—	—	−60	−5	500	70 at 5	—	—		2
BC361-10	PE	800	—	—	−60	−5	500	110 at 5	—	—		2
BSX40	PE	800	100	−30	−30	−5	500	35 at 10	0.025	25		2
2N4030	PE	800	100	−60	−60	−5	1A	30 at 5	0.05	50		2
2N4031	PE	800	100	−80	−80	−5	1A	30 at 5	0.05	60		2
BSX41	PE	800	150	−30	−30	−5	500	75 at 10	0.025	25		2
2N4032	PE	800	150	−60	−60	−5	1A	75 at 5	0.05	50		2
2N4033	PE	800	150	−80	−80	−5	1A	75 at 5	0.05	60	High speed switching	2
2N2904	PE	800	150	−60	−40	−5	600	75 at 10	0.025	25		2
2N2904A	PE	800	200	−60	−60	−5	600	40 at 10	0.01	50		2
2N2905	PE	800	200	−60	−40	−5	600	75 at 10	0.02	50		2
2N2905A	PE	800	200	−60	−60	−5	600	100 at 10	0.01	50		2

Silicon PNP Transistors

Type	Construction	P_C Max. (mW)	Typical f_T or $*f_1$ † fab (MHz)	Absolute Max. Ratings V_{CBO} (V)	V_{CEO} (V)	V_{EBO} (V)	I_C (mA)	Typical h_{FE} at (mA) (or $*h_{fe}$)	Max I_{CBO} at V_{CB} μA	V	Application	Base Ref.
MULLARD												
Replacement Types												
BCY49	AJ	250	—	−15	−15	−15	20	—	—	—	Low-level chopper	2
BFW87	PE	300	100	−60	−60	−5	500	110 at 10	0.1	50	General purpose	43
BFW88	PE	300	100	−60	−60	−5	500	55 at 10	0.1	50	General purpose	43
BFW89	PE	300	100	−40	−40	−5	500	110 at 10	0.1	30	General purpose	43
BFW90	PE	300	100	−40	−40	−5	500	55 at 10	0.1	30	General purpose	43
BFW91	PE	300	100	−20	−20	−5	500	55 at 50	0.1	15	General purpose	43
2N1131	PE	600	60	−50	−35	−5	600	45 at 10	1	30	Switching	2
2N1132	PE	600	60	−50	−35	−5	600	90 at 10	1	30	Switching	2
2N3133	PE	600	200	−50	−35	−4	600	120 at 150	0.05	30	Switching	2
2N3134	PE	600	200	−50	−35	−4	600	300 at 150	0.05	30	Switching	2
Current Types												
BCW29R	PE	200	150	−30	−20	—	100	120‡ at 2	—	—	Micro-miniature	53
BCW30R	PE	200	150	−30	−20	—	100	215‡ at 2	—	—	Micro-miniature	53
BCW69R	PE	200	150	−50	−45	—	100	120‡ at 2	—	—	Micro-miniature	53
BCW70R	PE	200	150	−50	−45	—	100	215‡ at 2	—	—	Micro-miniature	53
BC157	PE	220	130	−50	−45	−5	100	140 at 2	0.1	20	A.F.driver	43
BC158	PE	220	130	−30	−25	−5	100	140 at 2	0.1	20	General purpose	43
BC159	PE	220	130	−25	−20	−5	100	230 at 2	0.1	20	A.F.input	43
BCY30	AJ	250	1.2	−64	−64	−45	50	25* at 1	0.05	6	General purpose	2
BCY33	AJ	250	1.5	−32	−32	−16	50	25* at 1	0.05	6	General purpose	2
BCY31	AJ	250	1.7	−64	−64	−45	50	35* at 1	0.05	6	General purpose	2
BCY34	AJ	250	2.4	−32	−32	−16	50	35* at 1	0.05	6	General purpose	2
BCY32	AJ	250	2.5	−64	−64	−32	50	35* at 1	0.05	6	General purpose	2
BSV68	PE	250	50‡	−110	−100	—	100	30‡ at 25	—	—	Switching	2
BF450	PE	250	325	−40	−40	—	25	60‡ at 1	—	—	R.F.amplifiers	49
BF451	PE	250	325	−40	−40	—	25	30‡ at 1	—	—	R.F.amplifiers	49
BF324	PE	250	550	−30	−30	—	25	25‡ at 4	—	—	R.F.amplifiers	50
BSS68	PE	300	50	−110	−100	—	100	30‡ at 25	—	—	Switching	50
BC557	PE	300	150	−50	−45	—	200	75* at 2	—	—	General purpose	50
BC558	PE	300	150	−30	−25	—	200	75‡ at 2	—	—	General purpose	50
BC559	PE	300	150	−25	−20	—	200	125* at 2	—	—	General purpose	50
BCX17	PE	310	100	−50	−30	—	500	100‡ at 100	—	—	Micro-miniature	54
BCX18	PE	310	100	−45	−25	—	500	100‡ at 100	—	—	Micro-miniature	54
BCY71	PE	350	200	−45	−45	—	200	100‡ at 10	—	—	General purpose	2
BCY72	PE	350	200	−25	−25	—	200	50‡ at 10	—	—	General purpose	2
BCY70	PE	350	250	−50	−40	—	200	50‡ at 10	—	—	General purpose	2
BFX37	PE	360	0.01	−60	−60	−6	50	200 at 1	—	—	Amplifiers	2
2N2906	PE	400	200	−60	−40	−5	600	80 at 150	0.02	50	High speed switching	2
2N2906A	PE	400	200	−60	−60	−5	600	80 at 150	0.01	50	High speed switching	2
2N2907	PE	400	200	−60	−40	−5	600	200 at 150	0.02	50	High speed switching	2
2N2907A	PE	400	200	−60	−60	−5	600	200 at 150	0.01	50	High speed switching	2
BCY38	AJ	410	1.5*	−32	−32	−12	250	20 at 150	0.1	6	General purpose	2
BCY39	AJ	410	1.5*	−64	−64	−12	250	30 at 150	0.1	6	General purpose	2
BCY54	AJ	410	2*	−50	−50	−12	250	40 at 150	0.1	6	General purpose	2
BCY40	AJ	410	2.5*	−32	−32	−12	250	67 at 150	0.1	6	General purpose	2
BFX30	PE	600	—	−65	−65	−5	600	90 at 10	0.05	50	General purpose	2
BFX29	PE	600	100	−60	−60	—	600	50‡ at 10	—	—	General purpose	2
BFX87	PE	600	100	−50	−50	−4	600	90 at 150	0.5	1	General purpose	2
BFX88	PE	600	100	−40	−40	−4	600	90 at 150	0.5	1	General purpose	2
2N2904	PE	600	200	−60	−40	−5	600	120 at 150	0.02	50	High speed switching	2
2N2904A	PE	600	200	−60	−60	−5	600	120 at 150	0.01	50	High speed switching	2
2N2905	PE	600	200	−60	−40	−5	600	300 at 150	0.02	50	High speed switching	2
2N2905A	PE	600	200	−60	−60	−5	600	300 at 150	0.01	50	High speed switching	2
BC327	PE	625	100	−50	−45	—	1A	100‡ at 100	—	—	General purpose	50
BC328	PE	625	100	−30	−25	—	1A	100‡ at 100	—	—	General purpose	50
BCX35	PE	880	100	−80	−80	—	600	90 at 150	—	—	General purpose	43
BCX36	PE	880	100	−60	−60	—	600	90 at 150	—	—	General purpose	43
BCX37	PE	880	100	−40	−40	—	600	90 at 150	—	—	General purpose	43

Continued