

Silicon NPN Transistors

Type	Con- struction	P _c Max. (mW)	Typical f _T or *f ₁ † fab (MHz)	Absolute Max. Ratings				Typical h _{FE} at (mA) (or *h _{FE})	Max I _{CBO} at V _{CB}		Application	Base Ref.	
				V _{CB0} (V)	V _{CE0} (V)	V _{EB0} (V)	I _C (mA)		μA	V			
BCY58C	PE	300	300	32	32	5	200	350 at 2	0.01	32	Low level amplifiers	2	
BCY58D	PE	300	300	32	32	5	200	500 at 2	0.01	32		2	
BCY59A	PE	300	300	45	45	5	200	170 at 2	0.01	45		2	
BCY59B	PE	300	300	45	45	5	200	250 at 2	0.01	45		2	
BCY59C	PE	300	300	45	45	5	200	350 at 2	0.01	45		2	
BCY59D	PE	300	300	45	45	5	200	500 at 2	0.01	45		2	
BSY19 2N708	PE	300	300	40	15	5	200	30 at 10	0.025	20	Low level switching	2	
BSY21 2N914												2	
2N743	PE	300	300	20	12	5	200	10 at 100	1	20		2	
2N744	PE	300	300	20	12	5	200	20 at 100	1	20		2	
BF121	P	330	350	40	30	4	25	75 at 4	0.05	25		H.F. amplifiers & oscillators	37
BF127	P	330	350	40	30	4	25	60 at 4	0.05	20			37
BF125	PE	330	450	40	35	4	25	90 at 7	0.05	20	37		
BF123	PE	330	550	40	25	4	25	90 at 7	0.05	20	High speed switching	2	
2N3301	PE	360	250	60	30	5	500	35 at 10	0.01	50		2	
2N3302	PE	360	250	60	30	5	500	75 at 10	0.01	50		2	
2N2368	PE	360	400	40	15	4.5	500	40 at 10	0.4	20	H.S. saturated switching	2	
2N2369	PE	360	500	40	15	4.5	500	80 at 10	0.4	20		2	
2N2369A	PE	360	500	40	15	4.5	500	80 at 10	0.4	20		2	
BSW82	PE	500	200	40	25	5	500	30 at 10	0.1	30	High speed switching	2	
BSW83	PE	500	200	40	25	5	500	70 at 10	0.1	30		2	
BSW84	PE	500	200	75	40	5	500	35 at 10	0.01	50		2	
BSW85	PE	500	200	75	40	5	500	75 at 10	0.01	50		2	
2N2221	PE	500	250	60	30	5	800	35 at 10	0.01	50		2	
2N2221A	PE	500	250	75	40	6	800	35 at 10	0.01	60		2	
2N2222	PE	500	250	60	30	5	800	75 at 10	0.01	50		2	
2N2222A	PE	500	300	75	40	6	800	75 at 10	0.01	60		2	
BC337	PE	625	—	—	45	5	800	350 at 100	0.1	45		Medium level amplifiers	64
BC338	PE	625	—	—	25	5	800	350 at 100	0.1	45			64
BC140-6	PE	750	—	—	40	7	1A	70 at 100	0.1	40	High level amplifiers	2	
BC140-10	PE	750	—	—	40	7	1A	110 at 100	0.1	40		2	
BC140-16	PE	750	—	—	40	7	1A	175 at 100	0.1	40		2	
BC141-6	PE	750	—	—	60	7	1A	70 at 100	0.1	60		2	
BC141-10	PE	750	—	—	60	7	1A	110 at 100	0.1	60		2	
BC141-16	PE	750	—	—	60	7	1A	175 at 100	0.1	60		2	
BC340-6	PE	800	—	—	40	5	500	70 at 50	0.1	40	Medium level amplifiers	2	
BC340-10	PE	800	—	—	40	5	500	110 at 50	0.1	40		2	
BC340-16	PE	800	—	—	40	5	500	175 at 50	0.1	40		2	
BC341-6	PE	800	—	—	60	5	500	70 at 50	0.1	60		2	
BC341-10	PE	800	—	—	60	5	500	110 at 50	0.1	60		2	
BSY51 2N697	PE	800	100	60	25	5	500	80 at 150	0.1	30		Medium level switching	2
BSY52 2N1420											2		
BSY53 2N1613	PE	800	100	75	30	7	750	80 at 150	0.01	60	2		
BSY54 2N1711											2		
BSY55 2N1893	PE	800	100	120	80	7	500	80 at 150	0.01	90	2		
BSY56											2		
BSY87 2N1889	PE	800	100	100	60	7	500	80 at 150	0.01	75	2		
BSY88 2N1890											2		
2N1613	PE	800	100	75	50	7	500	80 at 150	0.01	60	Switching		2
2N1711	PE	800	100	75	50	7	500	200 at 150	0.01	60			2
2N1893	PE	800	100	120	80	7	500	80 at 150	0.01	90		2	

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				V _{CB0} (V)	V _{CE0} (V)	V _{EB0} (V)	I _C (mA)		μA	V		
BFR98	—	—	500	—	20	—	—	100 at 100	—	—	H.F. amplifiers	2
2N4427	—	—	500	—	30	—	—	80 at 4	0.05	30		9
BFX31	—	—	550	—	30	—	—	80 at 4	0.05	30		9
BFX18	—	—	550	—	30	—	—	75 at 2.5	0.05	30		9
BFX19	—	—	550	—	30	—	—	75 at 2.5	0.05	30		9
BFX20	—	—	550	—	30	—	—	70 at 2.5	0.05	30		9
BFX21	—	—	550	—	30	—	—	70 at 2.5	0.05	30		9
BFW63	—	—	600	—	30	—	—	70 at 4	—	—		21
BFW64	—	—	650	—	30	—	—	70 at 4	—	—		21
BFW70	—	—	900	—	30	—	—	75 at 10	—	—		21
BFX73	—	—	900	—	15	—	—	50 at 3	0.01	15		9
BFR36	—	—	1,300	—	30	—	—	95 at 150	—	—		2
BFR37	—	—	1,400	—	30	—	—	150 at 10	—	—		21
BF167	—	150	600	—	30	4	—	45 at 4	—	—		21
BF251	—	150	600	—	30	4	—	80 at 4	—	—		21
BF222	—	175	400	—	40	4	—	60 at 2	—	—	F.M. tuners	
BF166	—	175	500	—	40	3	—	50 at 2.5	—	—	V.H.F. a.g.c. amplifiers	
BF161	—	175	550	—	50	4	—	60 at 3	—	—	U.H.F. mixer/osc.	
BF173	—	175	1,000	—	25	4	—	115 at 7	—	—	I.F. vision output	
BC113	—	200	—	30	—	—	50	600 at 1	—	—	Pre-amplifiers	
BC114	—	200	—	30	—	—	50	600 at 1	—	—	Low noise pre-amplifiers	
BC207	—	200	—	50	—	—	100	280 at 2	—	—	Audio drivers	
BC208	—	200	—	25	—	—	100	455 at 2	—	—	Low voltage	
BC209	—	200	—	25	—	—	100	500 at 2	—	—	Low noise hi-fi	
2N918	—	200	60	—	15	—	—	—	—	—	R.F. I.F. amps./osc.	
2N4135	—	200	60	—	30	—	—	—	—	—	9	
BF454	—	200	400	—	25	4	—	90 at 1	—	—	A.M./F.M. I.F. amplifiers	
BF455	—	200	400	—	25	4	—	65 at 1	—	—	A.M./F.M. I.F. pre-amplifiers	
2N4134	—	200	450	—	30	—	—	—	—	—	R.F. I.F. amps./osc.	
BF233	—	200	500	—	30	4	—	—	—	—	A.M./F.M. amplifiers	
BF155	—	200	600	—	40	3	—	70 at 2.5	—	—	U.H.F. amps./osc.	
BF160	—	200	600	—	12	2	—	50 at 3	—	—	A.M./F.M. I.F. amplifiers	
BF273	—	200	600	—	20	4	—	95 at 1	—	—	A.M./F.M. amplifiers	
BF274	—	200	700	—	20	4	—	170 at 1	—	—	A.M./F.M. I.F. amplifiers	
BF158	—	200	800	—	12	2	—	50 at 5	—	—	TV I.F. amplifiers	
BF288	—	250	500	—	40	4	—	90 at 1	—	—	A.M./F.M. I.F. amplifiers	
BF287	—	250	700	—	40	4	—	60 at 2	—	—	A.M./F.M. amplifiers	
BF271	—	250	900	—	25	4	—	75 at 10	—	—	I.F. vision output	
BC107	—	300	—	50	—	—	100	280 at 2	—	—	Audio driver	
BC108	—	300	—	30	—	—	100	455 at 2	—	—	Low voltage	
BC109	—	300	—	30	—	—	100	500 at 2	—	—	Low noise hi-fi	
BC115	—	300	—	40	—	—	200	250 at 10	—	—	Audio driver	
BC125	—	300	—	50	—	—	500	60 at 150	—	—	64	
2N707	—	300	—	—	25	—	—	—	—	—	R.F. I.F. amps./osc.	
2N706	—	300	200	—	20	—	—	20‡ at 10	—	—	2	
2N2205	—	300	200	—	12	—	—	20‡ at 10	—	—	2	
2N743	—	300	280	—	12	—	—	40 at 10	—	—	2	
2N744	—	300	280	—	12	—	—	80 at 10	—	—	H.S. saturated switching	
2N708	—	300	300	—	15	—	—	75 at 10	—	—	2	
2N834	—	300	350	—	10	—	—	25‡ at 10	—	—	2	
2N709	—	300	600	—	6	—	—	70 at 10	—	—	2	
2N915	—	360	250	—	50	—	—	125 at 10	—	—	General purpose	
2N3301	—	360	250	—	30	—	—	80 at 150	—	—	amplifiers	
2N3302	—	360	250	—	30	—	—	200 at 150	—	—	2	

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