

NPN	PNP	Package	Leads	Vcbo	Vceo	Ic mA	hfe (min)	hfe (max)	fT Mhz	Watts	Ranking	Notes
2SC2238	2SA968	TO-220AB	bce	160	160	1500	70	240	100	25		
2SC2238A	2SA968A	TO-220AB	bce	180	180	1500	70	240	100	25		
2SC2238B	2SA968B	TO-220AB	bce	200	200	1500	70	240	100	25		
2SC3423	2SA1360	TO-126	ecb	120	120	50	80	240	200	10		
2SC3421	2SA1358	2-8H1A	ecb	120	120	100	80	240	120	10		
2SC4793	2SA1837	TO-220	bce	230	230	1000	100	320	70	20		
2SC5171	2SA1930	TO-220	bce	180	180	2000	50	320	200	20		
2SD669B	2SB649B	TO-220	bce	180	120	1500	60	120	140	20		
2SD669C	2SB649C	TO-220	bce	180	120	1500	100	200	140	20		
2SD669D	2SB649D	TO-220	bce	180	120	1500	160	320	140	20		
2SD669AB	2SB649AB	TO-220	bce	180	160	1500	60	120	140	20		
2SD669AC	2SB649AC	TO-220	bce	180	160	1500	100	200	140	20		
BD139	BD140	TO-225	ecb	100	80	1500	25	250	160	8		
MJE15030	MJE15031	TO-220	bce	150	150	8000	20	40	30	50		
MJE15032	MJE15033	TO-220	bce	250	250	8000	10	70	30	50		
MJE15034	MJE15035	TO-220	bce	350	350	4000	10	100	30	50		
MJE340	MJE350	TO-225	ecb		300	500	30	240		20		
TIP31A	TIP32A	TO-220	bce	60	60		10	50		40		
TIP31B	TIP32B	TO-220	bce	80	80		10	50		40		
TIP31C	TIP32C	TO-220	bce	100	100		10	50		40		
TIP41A	TIP42A	TO-220	bce	60	60		15	75		65		
TIP41B	TIP42B	TO-220	bce	80	80		15	75		65		
TIP41C	TIP42C	TO-220	bce	100	100		15	75		65		

NPN	PNP	Package	Leads	Vcbo	Vceo	Ic A	hfe (min)	hfe (max)	fT Mhz	Watts	Ranking	Notes
2SC2838	2SA1187	MT-200	bce	150	150	12	60		70	120		Discontinued
2SC2922	2SA1216	MT-200	bce	180	180	17	30	180	50	200		
2SC3264	2SA1295	MT-200	bce	230	230	17	50		60	200		
2SC3858	2SA1494	MT-200	bce	200	200	17	50	180	20	200		
2SC5200	2SA1943	TO-264	bce	230	230	15	35	160	30	150		
MJ15003	MJ15004	TO-3	bec	140	140	20	25	150	2	250		
MJ15024	MJ15025	TO-3	bec	400	250	16	15	60	4	250		
MJL21194	MJL21193	TO-3P	bce	250	200	16	8	75	4	200		
MJL3281	MJL1302	TO-264	bce	200	200	15	60	175	30	200		
MJL4281A	MJL4302A	TO-264	bce	350	350	15	10	250	35	230		
NJL3281D	NJL1302D	TO-264/5	becac	230	230	15	12	175	30	200		
NJW0281G	NJW0302G	TO-3P	bce	250	250	15	75	150	30	150		
NJW3281G	NJW1302G	TO-3P	bce	250	250	15	75	150	30	200		

Output Transistors

Small Signal Transistors | VAS Transistors | Driver Transistors | Output Transistors

NPN	PNP	Package	Leads	Vcbo	Vceo	Ic mA	hfe (min)	hfe (max)	fT Mhz	mW	Ranking	Notes
2N5551	2N5401	TO-92	ebc	160	150	200	40	240	300	625		
2SC1775	2SA872	TO-92	ecb	90	90	50	400	1200	120	200		LN,HB
2SC1775A	2SA872A	TO-92	ecb	120	120	50	400	1200	120	200		LN,HB
2SC1845P		TO-92	ecb	120	120	50	200	400	110	500		
2SC1845F		TO-92	ecb	120	120	50	300	600	110	500		HB
2SC1845E		TO-92	ecb	120	120	50	400	800	110	500		HB
2SC1845U		TO-92	ecb	120	120	50	600	1200	110	500		HB
2SC2240GR	2SA970GR	TO-92	ecb	120	120	100	200	400	100	300		LN
2SC2240BL	2SA970BL	TO-92	ecb	120	120	100	350	700	100	300		LN
2SC3334	2SA1321	TO-92MOD	ecb	250	250	50	50		80	900		
BC337	BC327	TO-92	cbe		45	800	100	600	260	625	4	LV
BC546	BC556	TO-92	cbe	80	65	100	125	475	280	500		
BC546A	BC556A	TO-92	cbe	80	65	100	125	250	280	500		
BC546B	BC556B	TO-92	cbe	80	65	100	220	475	280	500		
BC546C	BC556C	TO-92	cbe	80	65	100	420	800	280	500		
BC547	BC557	TO-92	cbe	50	45	100	125	800	320	500		LV
BC547B	BC557B	TO-92	cbe	50	45	100	220	475	320	500		LV
BC547C	BC557C	TO-92	cbe	50	45	100	420	800	320	500		LV
BC548B	BC558B	TO-92	cbe	30	35	100	240	500	360	500		LV
BC550	BC560	TO-92	cbe	45	50		100	800		625		LN, LV
BC559	BC549	TO-92	cbe	30	30		100	800		625		LV
BC639	BC640	TO-92	ecb	80	80		40	160		625		
KSC1845P	KSA992P	TO-92	ecb	120	120	50	200	400	100	625		LN
KSC1845F	KSA992F	TO-92	ecb	120	120	50	300	600	100	625		LN
KSC1845E	KSA992E	TO-92	ecb	120	120	50	400	800	100	625		LN
MPS8099	MPS8599	TO-92	ebc	80	80		100	300		625		
MPSA06	MPSA56	TO-92	ebc	80	80		100			625		
MPSA18		TO-92	ebc	45	45		500	1500		625		LN, HB, LV
MPSA42	MPSA92	TO-92	ebc	300	300		40			625		

NPN	PNP	Package	Leads	Vcbo	Vceo	Ic mA	hfe (min)	hfe (max)	Cob	Cre	fT Mhz	Watts	Ranking	Notes
2SC1819		TO-220AB	bce	300	300	100	50	250	5		100	15	2	O
2SC2911R	2SA1209R	TO-126	bce	180	160	140	100	200	3		150	10	1	
2SC2911S	2SA1209S	TO-126	bce	180	160	140	140	280	3		150	10	1	
2SC2911T	2SA1209T	TO-126	bce	180	160	140	200	400	3		150	10	1	
2SC3421	2SA1358	TO-220	ecb	120	120	1000	80	240	15		120	10	3	
2SC3423	2SA1360	TO-220	ecb	120	120	50	80	240	1.8		200	10	1	
2SC3600C	2SA1406C	TO-126	ecb	200	200	100	40	80		1.4	400	7	1	
2SC3600D	2SA1406D	TO-126	ecb	200	200	100	60	120		1.4	400	7	1	
2SC3600E	2SA1406E	TO-126	ecb	200	200	100	100	200		1.4	400	7	1	
2SC3600F	2SA1406F	TO-126	ecb	200	200	100	160	320		1.4	400	7	1	
2SC3955C	2SA1540C	TO-126ML	ecb	200	200	100	40	80	1.9	1.5	300	7	1	
2SC3955D	2SA1540D	TO-126ML	ecb	200	200	100	60	120	1.9	1.5	300	7	1	
2SC3955E	2SA1540E	TO-126ML	ecb	200	200	100	100	200	1.9	1.5	300	7	1	
2SC3955F	2SA1540F	TO-126ML	ecb	200	200	100	160	320	1.9	1.5	300	7	1	
BD139	BD140	TO-225	ecb	100	80	1500	25	250			190	8	5	
BF469-16	BF470-16	TO-126	ecb	250	250	100	50			1.8	60	1.8	2	
BF469-25	BF470-25	TO-126	ecb	250	250	100	50			1.8	60	1.8	2	
BF469-40	BF470-40	TO-126	ecb	250	250	100	50			1.8	60	1.8	2	
KSC3503C	KSA1381C	TO-126	ecb	300	300	100	40	80	2.6	1.8	150	7	2	
KSC3503D	KSA1381D	TO-126	ecb	300	300	100	60	120	2.6	1.8	150	7	2	
KSC3503E	KSA1381E	TO-126	ecb	300	300	100	100	200	2.6	1.8	150	7	1	
KSC3503F	KSA1381F	TO-126	ecb	300	300	100	160	320	2.6	1.8	150	7	1	
MJE340	MJE350	TO-225	ecb		300	500	30	240				20	5	