

# LOW-POWER SILICON NPN

Item Number	Part Number	Manufacturer	V <sub>(BR)CEO</sub> (V)	h <sub>FE</sub>	I <sub>C</sub> Max (A)	f <sub>T</sub> (Hz)	C <sub>obo</sub> Max (F)	I <sub>CBO</sub> Max (A)	V <sub>(BR)CBO</sub> (V)	P <sub>D</sub> Max (W)	Derate at (W/°C)	T <sub>Oper</sub> Max (°C)	Package Style
<b>V<sub>(BR)CEO</sub> ≥ 20 V, (Cont'd)</b>													
-	HSE415	Hybrid Semi	25	250		50M		100n	25	310m	3.1m	125 J	TO-92
-	2SC870	Solid Stinc	25	250	30m	150M	2.5p	.10u	30	200m	2.0m	125 J	TO-92
-	2SC538	See Index	25	250	50m			.01u	25	300m	2.0m	175 J	TO-18
-	2SC539	See Index	25	250	50m			.01u	25	300m	2.0m	175 J	TO-18
5	A5T3391	SemiconTech	25	250	100m		10p	100n	25	625m	5.0m	150 S	TO-92var
-	A5T3391A	SemiconTech	25	250	100m		10p	100n	25	625m	5.0m	150 S	TO-92var
-	A8T3391	SemiconTech	25	250	100m		10p	100n	25	625m	5.0m	150 S	TO-92
-	A8T3391A	SemiconTech	25	250	100m		10p	100n	25	625m	5.0m	150 S	TO-92
-	MPS3391A	Motorola	25	250	100m		10p	100n	25	350m	2.8m	150 J	TO-92
10	MPS3391A	Micro Elecs	25	250	100m		10p	100n	25	350m	2.8m	150 J	TO-92
-	MPS3391	See Index	25	250	100m	100M	10p	100n	25	350m	2.8m	150 J	TO-226AA
-	2SC368	RF Gain	25	250	100m	150M	1.5p	.10u	25	250m	1.7m	175 J	TO-18
-	BSY90	NthAmerSemi	25	250	500m	100M	10p	10n	60	800m	4.5m	175 J	TO-39
-	BSY90	Micro Elecs	25	250	500m	100M	10p	10n	60	800m	4.5m	175 J	TO-39
15	TBC338A	Indust Mexi	25	250	500m	100M	12p		30	625m			TO-92
-	2N3391	See Index	25	250	500m	100M	10p	100n	25	620m	2.6m	150 J	TO-98
-	2N3391A	See Index	25	250	500m	100M	10p	100n	25	620m	2.6m	150 S	TO-98
-	2N5420	See Index	25	250	500m	100M	6.0p	100n	25	400m	4.0m	150 S	TO-98
-	2N6008	See Index	25	250	500m	140M		30n	35	400m	4.0m	150 J	TO-98
20	BC338BP	FerrantiLtd	25	250	800m	100M	12p	100n		625m	5.0m	150 J	TO-92var
-	PET4002	SemiconTech	25	260	100m	60M	3p	.01u	30	360m	3.6m	125 J	TO-106
-	BC378	SGS-Ates	25	260	1.0	100M		.15n		375m		175 J	TO-18
-	TMPT1009F5	SprgueElec	25	270	10m	150M	3.5p	100n	50	350m		150 J	TO-236
-	2SC2001L	NECElecsinc	25	270	700m	170M	13p	100n	30	600m		150 J	TO-92
25	2SD1020H	NECElecsinc	25	270	700m	170M	13p	100n	30	350m	2.8m	150 J	SPAKvar
-	2SD1021H	NECElecsinc	25	270	1.0	100M	22p	100n	30	350m	2.8m	150 J	SPAKvar
-	SE4001	See Index	25	280		40M	4p	.20u	30	200m	2.0m	125 J	TO-222AB
-	2SD1619S	Sanyo Elect	25	280	1.0	180M	15p	100n	25	500m		150 J	SOT-89
-	2SD1621S	Sanyo Elect	25	280	2.0	150M	19p	100n	30	500m		150 J	SOT-89
30	PE4001	FairchildSC	25	300		40M	4.0p	200n	30			150 J	TO-92
-	JC500R	ITT SemiIntr	25	300		150M	6.0p	.15n					TO-92
-	2SC1622D7	NECElecsinc	25	300	30m			.50n	30	150m	1.5m	125 J	SOT-89
-	2SC711	Elec Trans	25	300	50m	150M	2.5p	100n	30	200m	2.0m	125 J	TO-92
-	2SC711	Solid Stinc	25	300	50m	150M	2.5p	100n	30	200m	2.0m	125 J	TO-92
35	2SD1447E	MitsubiElec	25	300	1.0	100M		1.0u	30	900m		150 J	MicroTO-92
-	2SD1020F	NECElecsinc	25	320	700m	170M	13p	100n	30	350m	2.8m	150 J	SPAKvar
-	2SC2120	See Index	25	320	800m	120M	13p	100n	30	600m	5.2m	150 J	TO-92
-	2SD1021F	NECElecsinc	25	320	1.0	100M	22p	100n	30	350m	2.8m	150 J	SPAKvar
-	2SC871	Solid Stinc	25	350	30m	150M	2.5p	.10u	30	200m	2.0m	125 J	TO-92
40	2SC631	Solid Stinc	25	350	100m	140M	4.5p	.20u	25	180m		125 J	TO-92var
-	40397	NthAmerSemi	25	375	200m	50.M	12p	.10u	25	500m	3.3m	175 J	TO-52var
-	40397	SemiconTech	25	375	200m	50.M	12p	.10u	25	500m	3.3m	175 J	TO-52var
-	BC238C	See Index	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-226AA
-	BC238C18	Motorola	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-18
45	BC238C5	Motorola	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-5
-	BC239C	See Index	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-226AA
-	BC239C18	Motorola	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-18
-	BC239C5	Motorola	25	380	100m	150M	4.5p	15n	35	350m	2.8m	150 J	TO-5
-	HSE416	Hybrid Semi	25	400		50M		100n	30	310m	3.1m	125 J	TO-92
50	SE4002	See Index	25	400		60M	4p	.20u	30	200m	2.0m	125 J	TO-222AB
-	SE4010	See Index	25	400		60M	4p	.20u	30	200m	2.0m	125 J	TO-222AB
-	BFY39-3	Mistral SpA	25	400		150M	5.0p	.50n	45	300m		175 J	TO-18
-	TMPT5089	SprgueElec	25	400	10m	50M	4.0p	.50n	30	350m		150 J	TO-236
-	2N5089	See Index	25	400	50m	50M		.50n	30	350m	2.8m	150 J	TO-92
55	MPS2990	Micro Elecs	25	400	100m		10p		30	360m			TO-92
-	PET4003	SemiconTech	25	400	100m	60M	3p	.01u	30	360m	3.6m	125 J	TO-106
-	MPS3390	See Index	25	400	100m	100M	10p	100n	25	350m	2.8m	150 J	TO-226AA
-	BFY39/III	CentralSemi	25	400	100m	150M		.05u	45	300m	2.0m	175 J	TO-18
-	BFY39/III	Intl Device	25	400	100m	150M		.05u	45	300m	2.0m	175 J	TO-18
60	2SC374	Solid Stinc	25	400	100m	150M	2.0p	1.0u	30	200m	2.0m	125 J	TO-98var
-	MMST5089	Rohm Corp	25	400	200m	50M	4.0p						SOT-23
-	MMST5089	Rohm Co Ltd	25	400	200m	50M	4.0p						SOT-23
-	KSD227	Samsung	25	400	300m			100n	30	400m		125 J	TO-92
65	2N3390	See Index	25	400	500m		10p	100n	25	620m	2.6m	150 J	TO-98
-	TBC338B	Indust Mexi	25	400	500m	100M	12p		30	625m			TO-92
-	2SC2001K	NECElecsinc	25	400	700m	170M	13p	100n	30	600m		150 J	TO-92
-	2SD1020E	NECElecsinc	25	400	700m	170M	13p	100n	30	350m	2.8m	150 J	SPAKvar
-	BC338CP	FerrantiLtd	25	400	800m	100M	12p	100n	30	625m	5.0m	150 J	TO-92var
-	2SD1021E	NECElecsinc	25	400	1.0	100M	22p	100n	30	350m	2.8m	150 J	SPAKvar
70	2SD1619T	Sanyo Elect	25	400	1.0	180M	15p	100n	25	500m		150 J	SOT-89
-	2SD1621T	Sanyo Elect	25	400	2.0	150M	19p	100n	30	500m		150 J	SOT-89
-	BC108C	See Index	25	420	200m	150M	4.5p	15n	30	600m	2.2m	175 J	TO-206AA
-	BC109C	See Index	25	420	200m	150M		15n	30	600m	2.2m	175 J	TO-206AA
75	2SC1622D8	NECElecsinc	25	450	30m			.50n	30	150m	1.5m	125 J	SOT-89
-	FMMT5089	FerrantiLtd	25	450	50m	50M	4.0p	.50n	30	300m		175	TO-236
-	MMBT5089	Natl Semi	25	450	50m	50M		.50n	30	225m	1.8m	150 J	SOT-23
-	MMBT5089	Samsung	25	450	50m	50M		.50n	30	225m	1.8m	150 J	SOT-23
-	MMBT5089	Motorola	25	450	50m	50M		.50n	30	225m	1.8m	150 J	SOT-23
-	PA6013B	Sid Micro	25	450	800m	150M	12p	500n	25	500m	4.0m	150 J	TO-92
80	HS3403	SprgueElec	25	540				100n	25	900m		150 J	TO-92var
-	2SD1619U	Sanyo Elect	25	560	1.0	180M	15p	100n	25	500m		150 J	SOT-89
-	2SD1246	Sanyo Elect	25	560	2	150M	19p	0.1u	30	750m		135 A	TO-92
-	2SD1621U	Sanyo Elect	25	560	2.0	150M	19p	100n	30	500m		150 J	SOT-89
85	TBC338	Indust Mexi	25	600	500m	100M	12p	100n	30	625m		150 J	TO-92
-	TBC338	ToshibaCorp	25	600	500m	100M	12p	100n	30	625m		150 J	TO-92
-	BC738	See Index	25	630		40M	20p	10n	30	625m		150 J	TO-92
-	BC338-40	See Index	25	630	800m	100M	12p	100n	30	600m	4.8m	150 J	TO-92
-	BC338P	FerrantiLtd	25	630	800m	100M	12p	100n	30	625m	5.0m	150 J	TO-92var
-	2SC1684	See Index	25	650	100m	150M	3.5p	1.0u	30	250m	2.2m	135 J	TO-92
90	2SD1206	Matsushita	25	650	100m	150M	3.0p	1.0u	30	400m	3.2m	150 J	SIP
-	2SD889	Matsushita	25	650	100m	150M	3.						