

# Miniature Transistors

TYPE NO.	POLARITY	CASE	MAXIMUM RATINGS			HFE				V <sub>CE(max)</sub>		f <sub>r</sub> min (MHz)	N.F.	
			P <sub>d</sub> (mW)	I <sub>C</sub> (mA)	V <sub>CEO</sub> (V)	min	max	I <sub>C</sub> (mA)	V <sub>CE</sub> (V)	max (V)	I <sub>C</sub> (mA)		max (dB)	f (Hz)
BC146	N	MT-42	50	50	20	80	550	0.2	0.5	-	-	150+	1.5+	30-15K
BC146R	N	MT-42	50	50	20	80	200	0.2	0.5	-	-	80+	1.5+	30-15K
BC146Y	N	MT-42	50	50	20	140	350	0.2	0.5	-	-	110+	4	30-15K
BC146G	N	MT-42	50	50	20	280	550	0.2	0.5	-	-	150+	1.5+	30-15K
BC200	P	MT-42	50	50	20	50	400	0.2	0.5	-	-	150+	1.5+	30-15K
BC200R	P	MT-42	50	50	20	50	105	0.2	0.5	-	-	80+	1.5+	30-15K
BC200Y	P	MT-42	50	50	20	85	200	0.2	0.5	-	-	110+	1.5+	30-15K
BC200G	P	MT-42	50	50	20	165	400	0.2	0.5	-	-	150+	1.5+	30-15K
BCW83	N	MT-42	225	200	30	100	850 #	2	5	0.25	10	150+	10	1K
CL151-4	N	MT-42	100	100	10	60	600	1	5	0.3	10	-	-	-
CL151-4A	N	MT-42	100	100	10	60	150	1	5	0.3	10	-	-	-
CL151-4B	N	MT-42	100	100	10	100	300	1	5	0.3	10	-	-	-
CL151-4C	N	MT-42	100	100	10	200	600	1	5	0.3	10	-	-	-
CL152-4	P	MT-42	100	100	10	60	600	1	5	0.3	10	-	-	-
CL152-4A	P	MT-42	100	100	10	60	150	1	5	0.3	10	-	-	-
CL152-4B	P	MT-42	100	100	10	100	300	1	5	0.3	10	-	-	-
CL152-4C	P	MT-42	100	100	10	200	600	1	5	0.3	10	-	-	-
MT0411	P	MT-42	50	50	20	100	300	1	5	0.25	10	40	4	1K
MT0412	P	MT-42	50	50	20	200	600	1	5	0.25	10	40	3	1K
MT0413	P	MT-42	50	50	20	60	-	1	5	0.25	10	40	4	1K
MT0414	P	MT-42	50	50	20	50	500	1	5	0.3	1	40	4	1K
MT4101	N	MT-42	50	50	20	70	300	1	5	0.25	10	60	4	1K
MT4102	N	MT-42	50	50	20	200	600	1	5	0.25	10	60	3	1K
MT4103	N	MT-42	50	50	40	100	600	1	5	0.25	10	60	4	1K
MT4104	N	MT-42	50	50	25	50	500	1	5	0.3	1	40	4	1K

# HFE groupings available + typical value

# Darlington Transistors

TYPE NO.	POLARITY	CASE	MAXIMUM RATINGS			HFE				V <sub>CE(max)</sub>		f <sub>r</sub> min (MHz)	C <sub>ob</sub> max (dB)	N.F. max (dB) @f=1KHz	COMPLEMENTARY TYPE
			P <sub>d</sub> (mW)	I <sub>C</sub> (mA)	V <sub>CEO</sub> (V)	V <sub>CES</sub> * (V)	min	max	I <sub>C</sub> (mA)	V <sub>CE</sub> (V)	max (V)				
BC516	P	TO-92F	625	400	30	30K	-	20	2	1	100	250+	4.5+	15#	BC517
BC517	N	TO-92F	625	400	30	30K	-	20	2	1	100	250+	3.5	15#	BC516
MPSA12	N	TO-92A	625	500	20	20K	-	10	5	1	10	-	-	-	-
MPSA13	N	TO-92A	500	300	30*	5K	-	10	5	1.5	100	125	3+	2+	-
MPSA14	N	TO-92A	500	300	30*	10K	-	10	5	1.5	100	125	3+	2+	-
MPSA63	P	TO-92A	625	300	30	10K	-	100	5	1.5	100	125	-	-	-
MPSA65	P	TO-92A	500	300	30*	50K	-	10	5	1.5	100	125	4+	2+	-
MPSA66	P	TO-92A	500	300	30*	75K	-	10	5	1.5	100	125	4+	2+	-
MPSD04	N	TO-92A	625	300	25*	1K	-	10	5	1	100	100	-	-	MPSD54
MPSD54	P	TO-92A	625	300	25*	1K	-	10	5	1	100	100	-	-	MPSD04
2N997	N	TO-18	500	300	40	7K	70K	100	10	1.6	100	-	-	-	-
2N5305	N	TO-92B	600	300	25	2K	20K	2	5	1.4	200	60	10	-	-
2N5306	N	TO-92B	600	300	40	7K	70K	2	5	1.4	200	60	10	-	-
2N5307	N	TO-92B	600	300	40	2K	20K	2	5	1.4	200	60	10	-	-
2N5308	N	TO-92B	600	300	40	7K	70K	2	5	1.4	200	60	10	-	-

+ typical value # f=WB