

# 15. MISCELLANEOUS TRANSISTORS

IN ORDER OF: (1)CATEGORY,(2)TYPE NO.

LINE No.	TYPE No.	CATEGORY	STRUCTURE	MATERIAL	DWG # Y200 s/a TO200 Ser.	LEAD	DESCRIPTION
1#	uPA37A*	6	N-E	Si	RT31h	PD	Dual Trans for Hi Speed Lo Level Diff Ampl;f <sub>t</sub> 400MHz Typ
2#	uPA38A*	6	NE	Si	T078	QS	Dual Trans for Lo Noise Lo Level Diff Ampl;NF 1.0dB typ at 1.0kHz;V <sub>ce</sub> 5.0V;I <sub>c</sub> 10uA
3#	uPA39A*	6	NE	Si	T078	QS	Dual Trans for Lo Noise Lo Level Diff Ampl;NF 2.0dB typ at 1.0kHz;V <sub>ce</sub> 5.0V;I <sub>c</sub> 10uA
4#	uPA49A*	6	P	Si	T078	QS	Dual Trans for Lo Level Diff Ampl;hFE1/hFE2 .80 min;1.25 max at V <sub>ce</sub> 1.0V;I <sub>c</sub> 1.0mA
5	U231*	6	N	Si	R120		IG(1-2)10nA max;VGS(1-2)5.0mV max;ΔVGS(1-2)/ΔT 10uV/°C
6	U232*	6	N	Si	R120		IG(1-2)10nA max;VGS(1-2)10mV max;ΔVGS(1-2)/ΔT 25uV/°C
7	U233*	6	N	Si	R120		IG(1-2)10nA max;VGS(1-2)15mV max;ΔVGS(1-2)/ΔT 50uV/°C
8	U234*	6	N	Si	R120		IG(1-2)10nA max;VGS(1-2)20mV max;ΔVGS(1-2)/ΔT 75uV/°C
9	U235*	6	N	Si	R120		IG(1-2)10nA max;VGS(1-2)25mV max;ΔVGS(1-2)/ΔT 100uV/°C
10	U257*	6	N	Si	T099	PF	IDSS1/2 1.0 max;gfs1/2 1.0 max;goss(1-2) 20umho max;VGS(1-2) 100mV max.
11	U401	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 10uV/°C;VGS(1-2) 5mV;JFET
12	U402	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 10uV/°C;VGS(1-2) 10mV;JFET
13	U403	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 25uV/°C;VGS(1-2) 10mV;JFET
14	U404	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 25uV/°C;VGS(1-2) 15mV;JFET
15	U405	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 40uV/°C;VGS(1-2) 20mV;JFET
16	U406	6	N	Si	T071	PJ	BVG(1-2)50V;ΔVGS(1-2)/ΔT 80uV/°C;VGS(1-2) 40mV;JFET
17	U421	6	N**	Si	T099	PF	CMRR95dB TYP;VGS(1-2)10mVmax;VGS(1-2)/ΔT 10uV/°C max;JFET
18	U422	6	N**	Si	T099	PF	CMRR 90dB TYP;VGS(1-2)15mV;VGS(1-2)/ΔT 25uV/°C max;JFET
19	U423	6	N**	Si	T099	PF	CMRR90dB TYP;VGS(1-2)25mVmax;VGS(1-2)/ΔT 40uV/°C max;JFET
20	U424	6	N**	Si	T099	PF	CMRR95dB TYP;VGS(1-2)10mVmax;VGS(1-2)/ΔT 10uV/°C max;JFET
21	U425	6	N**	Si	T099	PF	CMRR90dB TYP;VGS(1-2)15mVmax;VGS(1-2)/ΔT 25uV/°C max;JFET
22	U426	6	N**	Si	T099	PF	CMRR90dB TYP;VGS(1-2)25mVmax;VGS(1-2)/ΔT 40uV/°C max;JFET
23	U430*	6	N	Si	T099	QV	Matched Dual;IDSS 1/2 10% max;Vp 1/2 10% max;gfs1/2 10% max;VG(1-2)200mV max.
24	U431*	6	N	Si	T099	QV	Matched Dual;IDSS 1/2 10% max;Vp 1/2 10% max;gfs1/2 10% max;VG(1-2)200mV max.
25	UCX2910*	6	NA	Si	T078		Pt. 75W;hFE1/2-90 min;VBE(1-2)-1mV;tr-20ns;tr-20ns.
26#	ZDT40	6	N-PL	Si	T078		PL-500mW(both sides);Pair of ZT 82.
27#	ZDT41	6	N-PL	Si	T078		PL-500mW(both sides);Pair of ZT 84.
28#	ZDT42	6	N-PL	Si	T078		PL-500mW(both sides);VBE(1-2)-5mV max;hFE1/hFE2-1.0 max.
29#	ZDT44	6	N-PL	Si	T078		PL-500mW(both sides);VBE(1-2)-10mV max;hFE1/hFE2-1.0 max.
30#	ZDT45	6	N-PL	Si	T078		PL-500mW(both sides);VBE(1-2)-10mV max;hFE1/hFE2-1.0 max.
31	2N489	9	P	Si	R33	CC	Pt 450mW;n .62 max;RBB 6.8kΩ max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
32	2N489A	9	P	Si	R33	CC	Pt 45W max;RBB 6.8kΩ max;n .62 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
33	JAN2N489A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 6.8kΩ max;n .62 max;I <sub>p</sub> 12uA max.
34	2N489B	9	P	Si	R33	CC	Pt 450mW;n .62 max;RBB 6.8kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
35	2N490	9	P	Si	R33	CC	Pt 450mW;n .62 max;RBB 9.1kΩ max;I <sub>p</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
36	2N490A	9	P	Si	R33	CC	Pt 45W max;RBB 9.1kΩ max;n .62 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
37	JAN2N490A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 9.1kΩ max;n .62 max;I <sub>p</sub> 12uA max.
38	2N490B	9	P	Si	R33	CC	Pt 450mW;n .62 max;RBB 9.1kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
39	2N490C	9	P	Si	R33	CC	Pt 45W;RBB 9.1kohms;n .51 min;VBE(sat) 4.0V max.
40	2N491	9	P	Si	R33	CC	Pt 450mW;n .68 max;RBB 6.8kΩ max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
41	2N491A	9	P	Si	R33	CC	Pt 45W max;RBB 6.8kΩ max;n .68 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
42	JAN2N491A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 6.8kΩ max;n .68 max;I <sub>p</sub> 12uA max.
43	2N491B	9	P	Si	R33	CC	Pt 450mW;n .68 max;RBB 6.8kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
44	2N492	9	P	Si	R33	CC	Pt 450mW;n .68 max;RBB 9.1kΩ max;I <sub>p</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
45	2N492A	9	P	Si	R33	CC	Pt 45W max;RBB 9.1kΩ max;n .68 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
46	JAN2N492A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 9.1kΩ max;n .68 max;I <sub>p</sub> 12uA max.
47	2N492B	9	P	Si	R33	CC	Pt 450mW;n .68 max;RBB 9.1kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
48	2N492C	9	P	Si	R33	CC	Pt 45W;RBB 9.1kohms;n .56 min;VBE(sat) 4.3V max.
49	2N493	9	P	Si	R33	CC	Pt 450mW;n .75 max;RBB 6.8kΩ max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
50	2N493A	9	P	Si	R33	CC	Pt 45W max;RBB 6.8kΩ max;n .75 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
51	JAN2N493A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 6.8kΩ max;n .75 max;I <sub>p</sub> 12uA max.
52	2N493B	9	P	Si	R33	CC	Pt 450mW;n .75 max;RBB 6.8kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
53	2N494	9	P	Si	R33	CC	Pt 450mW;n .75 max;RBB 9.1kΩ max;I <sub>p</sub> 8.0mA min;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
54	2N494A	9	P	Si	R33	CC	Pt 45W max;RBB 9.1kΩ max;n .75 max;I <sub>p</sub> 12uA max;I <sub>v</sub> 8.0mA min.
55	JAN2N494A	9	P	Si	R33	CA	Pt 60W;VBE 60V;RBB 9.1kΩ max;n .75 max;I <sub>p</sub> 12uA max.
56	2N494B	9	P	Si	R33	CC	Pt 450mW;n .75 max;RBB 9.1kΩ max;I <sub>p</sub> 6.0uA max;I <sub>v</sub> 8.0mA min.
57	2N494C	9	P	Si	R33	CC	Pt 45W;RBB 9.1kohms;n .62 min;VBE1 4.6V max.
58	2N1671	9	P	Si	R33	CC	Pt 45V;n .62 max;RBB 9.1kohms max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 25uA max.
59	2N1671B	9	P	Si	R33	CC	Pt 45V;n .62 max;RBB 9.1kΩ max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 25uA max.
60	2N1671C	9	P	Si	R33	CC	Pt 450mW;n .62 max;RBB 9.1kΩ max;I <sub>v</sub> 8.0mA min;I <sub>p</sub> 6.0uA max.
61	2N1671D	9	P	Si	R33	CC	Pt 450mW;VBE 30V;VBE2 35V;RBB 4.7 to 9.1kΩ;n .47 to .62;I <sub>B</sub> 2(MOD) 6.8 to 22mA.
62	2N160	9	P	Si	R33	CC	Pt 45V;VBE2 35V max;I <sub>e</sub> 70mA;n .80 max;I <sub>p</sub> 25uA max.
63	2N2417	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .62 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
64	2N2417A	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .62 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
65	JAN2N2417A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 6.8kΩ max;n .62 max;I <sub>p</sub> 12uA max.
66	2N2417B	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .62 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
67	2N2418	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .62 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
68	2N2418A	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .62 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
69	JAN2N2418A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 9.1kΩ max;n .62 max;I <sub>p</sub> 12uA max.
70	2N2418B	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .62 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
71	2N2419	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .68 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
72	2N2419A	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .68 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
73	JAN2N2419A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 6.8kΩ max;n .68 max;I <sub>p</sub> 12uA max.
74	2N2419B	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .68 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
75	2N2420	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .68 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
76	2N2420A	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .68 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
77	JAN2N2420A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 9.1kΩ max;n .68 max;I <sub>p</sub> 12uA max.
78	2N2420B	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .68 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
79	2N2421	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .75 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
80	2N2421A	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .75 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
81	JAN2N2421A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 6.8kΩ max;n .75 max;I <sub>p</sub> 12uA max.
82	2N2421B	9	P	Si	R33c	CC	Pt 300mW;RBB 6.8kΩ max;n .75 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
83	2N2422	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .75 max;I <sub>p</sub> 12uA max;I <sub>B</sub> 2(MOD) 22mA max.
84	2N2422A	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .75 max;VBE1(sat) 5.0V max;I <sub>v</sub> 8.0mA min.
85	JAN2N2422A	9	P	Si	T072	CA	Pt 35V;VBE 60V;RBB 9.1kΩ max;n .75 max;I <sub>p</sub> 12uA max.
86	2N2422B	9	P	Si	R33c	CC	Pt 300mW;RBB 9.1kΩ max;n .75 max;I <sub>p</sub> 6.0uA max;VBE1 3.0V min.
87	2N2646	9	P	Si	T072	CC	Pt 30W;VBE 30V;VBE2 35V;RBB 9.1kΩ max;VBE1 3V;I <sub>p</sub> 5uA;n 56-.75;I <sub>v</sub> 4mA min
88	2N2647	9	P	Si	T072	CC	Pt 30W;VBE 30V;VBE2 35V;RBB 9.1kΩ max;VBE1 6V;I <sub>p</sub> 2uA;n 68-.82;I <sub>v</sub> 8-18mA
89	2N2840	9	P	Si	T072	CA	Pt 30W;VBE 30V;VBE 35V;I <sub>p</sub> 10uA max;I <sub>v</sub> 70mA max.
90	2N3479	9	P	Si	R33	GF	Pc 40W;RBB 9.1kohms max;n .62 max;I <sub>v</sub> 4.0mA min;I <sub>p</sub> 20uA max.
91	2N3480	9	P	Si	R33	GF	Pc 40W;RBB 9.1kohms max;n .75 max;I <sub>v</sub> 4.0mA min;I <sub>p</sub> 20uA max.
92	2N3481	9	P	Si	R33	GF	Pc 40W;RBB 9.1kohms max;n .85 max;I <sub>v</sub> 4.0mA min;I <sub>p</sub> 20uA max.
93	2N3483	9	P	Si	R33	GF	Pc 40W;RBB 9.1kΩ max;n .72 max;I <sub>v</sub> 4.0mA min;I <sub>p</sub> 5.0uA max.
94	2N3484	9	P	Si	R33	GF	Pc 40W;RBB 9.1kohms max;n .85 max;I <sub>v</sub> 4.0mA min;I <sub>p</sub> 5.0uA max.
95	2N3980	9	P	Si	T072	CA	Pd 36W;I <sub>v</sub> 50mA;RBB 8.0kohms;n .82 max;I <sub>p</sub> 2.0uA max;I <sub>v</sub> 10mA max.
96	2N4851	9	P	Si	T072	CA	Pd 30W;RBB 9.1kohms max;n .75 max;I <sub>v</sub> 2.0mA max;I <sub>p</sub> 2.0uA max;I <sub>e</sub> (DC).
97	2N4852	9	P	Si	T072	CA	Pd 30W;RBB 9.1kohms max;n .85 max;I <sub>v</sub> 4.0mA max;I <sub>p</sub> 2.0uA max.
98	2N4853	9	P	Si	T072	CA	Pt 300mW;n .85 max;RBB 9.1kΩ max;I <sub>v</sub> 6.0mA min;I <sub>p</sub> 400mA max.
99	2N4870	9	P	Si	T092	CB	Pd 30W;VBE2 35V max;I <sub>v</sub> 2.0mA min;VBE1 3.0V min;n .75 max.
100	2N4871	9	P	Si	T092	CB	Pd 30W;VBE2 35V max;I <sub>v</sub> 4.0mA min;VBE1 5.0V min;n .85 max.
101	2N4891	9	P	Si	R203	CG	Pt 360mW;RBB 9.1kΩ max;n .82 max;VBE1(sat) 4.0V max;VBE1 3.0V min;I <sub>p</sub> 5.0uA max.
102	2N4892	9	P	Si	R203	CG	Pt 360mW;RBB 9.1kΩ max;n .69 max;VBE1(sat) 4.0V max;VBE1 3.0V min;I <sub>p</sub> 2.0uA max.
103	2N4893	9	P	Si	R203	CG	Pt 360mW;RBB 12kΩ max;n .82 max;VBE1(sat) 4.0V max;VBE1 3.0V min;I <sub>p</sub> 2.0uA max.
104	2N4894	9	P	Si	R203	CG	Pt 360mW;RBB 12kΩ max;n .86 max;VBE1(sat) 4.0V max;VBE1 3.0V min;I <sub>p</sub> 1.0uA max.
105	2N4947	9	P	Si	R33a	CC	Pt 36W;RBB 9.1koh