

# 8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MIN. DERATING FACTOR  
& (2) TYPE No.

LINE No.	TYPE No.	1 MIN. DERATE J to C (W/°C)	MAX FREE AIR @ 25°C (W)	M A E X T R I N E R P	ABSOLUTE MAX. RATINGS @25°C					MAX. hFE			f <sub>ae</sub> (Hz)	MAX. SAT. RES. (Ω)	tr (s)	STRUC- TURE	DWG Y200 s/a TO200 Ser.	# C O D E	
					I <sub>c</sub> (A)	I <sub>b</sub> (A)	V <sub>cb</sub> (V)	V <sub>eb</sub> (V)	V <sub>ceo</sub> (V)	I <sub>co</sub> MAX (mA) @25°C	V <sub>cb</sub> (V)	I <sub>c</sub> (A)							MIN
1	2N1031	1.2	90	#J	15	1.5	50	25	30	15m	2.0	10	20	60	100m	15u	AΔ	T041	C0
2	2N1031A	1.2	90	#J	15	1.5	50	25	40	15m	2.0	10	20	60	100m	15u	AΔ	T041	C0
3	2N1031B	1.2	90	#J	15	1.5	90	25	70	15m	2.0	10	20	60	100m	15u	AΔ	T041	C0
4	2N1031C	1.2	90	#J	15	1.5	100	25	80	15m	2.0	10	20	60	100m	15u	AΔ	T041	C0
5	2N1032	1.2	90	#J	15	1.5	50	25	30	15m	2.0	10	50	100	100m	15u	AΔ	T041	C0
6	2N1032A	1.2	90	#J	15	1.5	60	25	40	15m	2.0	10	50	100	100m	15u	AΔ	T041	C0
7	2N1032B	1.2	90	#J	15	1.5	90	25	70	15m	2.0	10	50	100	100m	15u	AΔ	T041	C0
8	2N1032C	1.2	90	#J	15	1.5	100	25	80	15m	2.0	10	50	100	100m	15u	AΔ	T041	C0
9	2N1099†	1.2	30	#J	15	4.0	80	40	80	8.0m	2.0	5.0	35	70	58m	15u		T036	C0
10	2N1100†	1.2	30	#J	15	4.0	100	80	80	8.0m	2.0	5.0	25	50	58m	15u		T036	C0
11	JAN2N1120	1.2	90	#J	15	5.0	80	40	40	10m	2.0	5.0	20	50	70m		Δ	T041	C0
12	2N1146	1.2	87	#S	15	5.0	40	30	38	15m	2.0	5.0	60	150	66m			T03	C0
13	2N1146A	1.2	87	#S	15	5.0	60	30	58	15m	2.0	5.0	60	150	66m			T03	C0
14	2N1146B	1.2	87	#S	15	5.0	80	30	78	15m	2.0	5.0	60	150	66m			T03	C0
15	2N1146C	1.2	87	#S	15	5.0	100	30	98	15m	2.0	5.0	60	150	66m			T03	C0
16	2N1147	1.2	87	#S	15	5.0	40	30	38	15m	2.0	5.0	60	150	66m			T041	C0
17	2N1147A	1.2	87	#S	15	5.0	60	30	58	15m	2.0	5.0	60	150	66m			T041	C0
18	2N1147B	1.2	87	#S	15	5.0	80	30	78	15m	2.0	5.0	60	150	66m			T041	C0
19	2N1147C	1.2	87	#S	15	5.0	100	30	98	15m	2.0	5.0	60	150	66m			T041	C0
20	2N1162	1.2	90	#J	25	25	50	20	25	15m	1.0	25	15	65	1.0kΔ			T03	C0
21	2N1162A	1.2	90	#C	25	25	50	25	20	15m	1.0	25	15	65	3.0kΔ			T03	C0
22	2N1163	1.2	90	#J	25	25	50	20	25	15m	1.0	25	15	65	1.0kΔ			T041	C0
23	2N1163A	1.2	90	#C	25	25	50	25	20	15m	1.0	25	15	65	3.0kΔ			T03	C0
24	2N1164	1.2	90	#J	25	25	80	25	35	15m	1.0	25	15	65	1.0kΔ			T03	C0
25	2N1164A	1.2	90	#C	25	25	80	40	40	15m	1.0	25	15	65	3.0kΔ			T03	C0
26	2N1165	1.2	90	#J	25	25	80	25	35	15m	1.0	25	15	65	1.0kΔ			T041	C0
27	JAN2N1165	1.2	90	#J	25	25	80	40	60	15m	1.0	5.0	25	125	3.0kΔ			T041	C0
28	2N1165A	1.2	90	#C	25	25	80	40	40	15m	1.0	25	15	65	3.0kΔ			T03	C0
29	2N1166	1.2	90	#J	25	25	100	30	45	15m	1.0	25	15	65	1.0kΔ			T03	C0
30	2N1166A	1.2	90	#C	25	25	100	50	50	15m	1.0	25	15	65	3.0kΔ			T03	C0
31	2N1167	1.2	90	#J	25	25	100	30	45	15m	1.0	25	15	65	1.0kΔ			T041	C0
32	2N1167A	1.2	90	#C	25	25	100	50	50	15m	1.0	25	15	65	3.0kΔ			T03	C0
33	2N1182	1.2	106	#J	5.0	1.0	50	12	60	12m	2.0	500m	30	85	5.0kΔ			T03	C0
34	2N1358†	1.2	30	#J	15	4.0	80	60	60	8.0m	2.0	1.2	40	80	100kΔ	15u		T036	C0
35	2N1359	1.2	30	#C	3.0	3.0	50	25	40	20m	4.0	1.0	35	90	5.0kΔ			T03	C0
36	2N1360	1.2	30	#C	3.0	3.0	50	25	40	20m	4.0	1.0	60	140	5.0kΔ			T03	C0
37	2N1362	1.2	30	#C	3.0	3.0	100	50	75	20m	4.0	1.0	35	90	5.0kΔ			T03	C0
38	2N1363	1.2	30	#C	3.0	3.0	100	50	75	20m	4.0	1.0	60	140	5.0kΔ			T03	C0
39	2N1364	1.2	30	#C	3.0	3.0	120	60	100	20m	4.0	1.0	35	90	5.0kΔ			T03	C0
40	2N1365	1.2	30	#C	3.0	3.0	120	60	100	20m	4.0	1.0	60	140	5.0kΔ			T03	C0
41	2N1412	1.2	87	#J	15	4.0	100	60	65	8.0m	2.0	5.0	25	50	28m		Δ	T036	C0
42	2N1419†	1.2	87	#S	25	5.0	80	50	75	15m	2.0	25	40	100	28m			T03	C0
43	2N1518	1.2	70	#J	25	4.0	50	30	40	100u	4.0	15	15	60	28m		A	T036	C0
44	2N1519	1.2	70	#J	25	4.0	80	30	60	100u	4.0	15	17	68	28m		A	T036	C0
45	2N1520	1.2	70	#J	35	6.0	50	30	40	100u	4.0	15	17	68	17m		A	T036	C0
46	2N1521	1.2	70	#J	35	6.0	80	30	60	100u	4.0	15	25	100	10m		A	T036	C0
47	2N1522	1.2	70	#J	50	8.0	50	30	40	100	4.0	15	25	100	10m		A	T036	C0
48	2N1523	1.2	70	#J	50	8.0	80	30	60	100	4.0	15	25	100	10m		A	T036	C0
49	2N1529	1.2	90	#C	5.0	5.0	40	20	30	200u	2.0	3.0	20	40	2.0k	500m		T03	C0
50	2N1530	1.2	90	#C	5.0	5.0	40	20	45	200u	2.0	3.0	20	40	2.0k	500m		T03	C0
51	2N1531	1.2	90	#C	5.0	5.0	80	40	60	200u	2.0	3.0	20	40	2.0k	500m		T03	C0
52	2N1532	1.2	90	#C	5.0	5.0	100	50	75	200u	2.0	3.0	20	40	2.0k	500m		T03	C0
53	2N1533	1.2	90	#C	5.0	5.0	120	60	90	200u	2.0	3.0	35	70	2.0k	400m		T03	C0
54	2N1534	1.2	90	#C	5.0	5.0	40	20	30	200u	2.0	3.0	35	70	2.0k	400m		T03	C0
55	2N1535	1.2	90	#C	5.0	5.0	60	30	45	200u	2.0	3.0	35	70	2.0k	400m		T03	C0
56	2N1536	1.2	90	#C	5.0	5.0	80	40	60	200u	2.0	3.0	35	70	2.0k	400m		T03	C0
57	2N1537	1.2	90	#C	5.0	5.0	100	50	75	200u	2.0	3.0	35	70	2.0k	400m		T03	C0
58	2N1538	1.2	90	#C	5.0	5.0	120	60	90	200u	2.0	3.0	50	100	1.0k	100m		T03	C0
59	2N1539	1.2	90	#C	5.0	5.0	40	20	30	200u	2.0	3.0	50	100	3.0kΔ	200m		T03	C0
60	2N1539A	1.2	90	#C	5.0	5.0	40	20	20	20m	2.0	3.0	50	100	1.0k	100m		T03	C0
61	2N1540	1.2	90	#C	5.0	5.0	60	30	45	20m	2.0	3.0	50	100	3.0kΔ	200m		T03	C0
62	2N1540A	1.2	90	#C	5.0	5.0	60	30	30	200u	2.0	3.0	50	100	1.0k	100m		T03	C0
63	2N1541	1.2	90	#C	5.0	5.0	80	40	60	20m	2.0	3.0	50	100	3.0kΔ	200m		T03	C0
64	2N1541A	1.2	90	#C	5.0	5.0	80	40	40	20m	2.0	3.0	50	100	1.0k	100m		T03	C0
65	2N1542	1.2	90	#C	5.0	5.0	100	50	50	20m	2.0	3.0	50	100	3.0kΔ	200m		T03	C0
66	2N1542A	1.2	90	#C	5.0	5.0	100	50	50	200u	2.0	3.0	50	100	1.0k	100m		T03	C0
67	2N1543	1.2	90	#C	5.0	5.0	120	60	90	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
68	2N1544	1.2	90	#C	5.0	5.0	40	20	20	20m	2.0	3.0	75	150	3.0kΔ	66m		T03	C0
69	2N1544A	1.2	90	#C	5.0	5.0	40	20	20	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
70	2N1545	1.2	90	#C	5.0	5.0	60	30	30	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
71	2N1545A	1.2	90	#C	5.0	5.0	60	30	30	20m	2.0	3.0	75	150	3.0kΔ	66m		T03	C0
72	2N1546	1.2	90	#C	5.0	5.0	80	40	40	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
73	2N1546A	1.2	90	#C	5.0	5.0	80	40	40	20m	2.0	3.0	75	150	3.0kΔ	66m		T03	C0
74	2N1547	1.2	90	#C	5.0	5.0	100	50	50	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
75	2N1547A	1.2	90	#C	5.0	5.0	100	50	50	20m	2.0	3.0	75	150	3.0kΔ	66m		T03	C0
76	2N1548	1.2	90	#C	5.0	5.0	120	60	60	20m	2.0	3.0	75	150	1.0kΔ	66m		T03	C0
77	2N1549	1.2	90	#J	15	15	40	20	20	20m	2.0	10	10	30	100m			T03	C0
78	2N1549A	1.2	90	#															