

PNP Transistors



Medium Power

Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CB0} (nA) Max	I _{CB0} (nA) Max	h _{FE} @ I _C & V _{CE} (V) Min Max	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) Max Min	I _C (mA) Max	COB (pF) Max	f _T (MHz) @ I _C (mA) Min Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.	
2N4030	TO-39	60	60	5	50	50	1A 5 500 5 100 5 120 0.1 5	1.0 0.5 0.15	1A 500 150	20	100 400	400		(Note 3)	67	
2N4031	TO-39	80	80	5	50	60	1A 5 500 5 120 100 5 0.1 5	0.5 0.15	500 150	20	100 400	400		(Note 3)	67	
2N4032	TO-39	60	60	5	50	50	1A 5 500 5 100 300 100 5 0.1 5	1.0 0.5 0.15	1A 500 150	20	150 500	400		(Note 3)	67	
2N4033 also Avail. JAN/TX/V Versions	TO-39	80	80	5	50	60	1A 5 500 5 100 300 100 5 0.1 5	0.5 0.15	500 150	20	150 500	400		(Note 3)	67	
2N4036	TO-39	90	85	7	20	60	500 10 140 150 10 0.1 10	0.6	1.4 150	30	60	700		(Note 4)	67	
2N4037	TO-39	60	40	7	250	60	50 250 150 10 15 1 10	1.4	150 150	30	60				67	
2N4314	TO-39	90	65		250	60	50 250 150 10 15 1 10	1.4	150 150	30	60				67	
2N4354		Same as PN4354														67
2N4355		Same as PN4355														67
2N4356		Same as PN4356														67

Medium Power (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	ICES* I _{CB0} @ V _{CB} (mA) Max	I _{FE} @ I _C & V _{CE} (mA) Min Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Min Max	COB (pF) Max	f _T (MHz) Min Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
MPSA55	TO-92 (92)		60	4	100 60	50 50	0.25	100	100 1		50				67
MPSA56	TO-92 (92)		80	4	100 80	50 50	0.25	100	100 1		50				67
MPS4354	TO-92 (92)	Same as PN4354													
MPS4355	TO-92 (92)	Same as PN4355													
MPS4356	TO-92 (92)	Same as PN4356													
MPS6562	TO-92 (92)	25	25	5	100 20	50 35	0.5	500	500 1	30	60				67
PN4354	TO-92 (92)	60	60	5	50 50	30 40	0.15	150 500	10 10	30	100 500	400	3	14/15	67
PN4355	TO-92 (92)	60	60	5	50 50	75 100	0.15	150 500	10 10	30	100 500	400	3	14/15	67
PN4356	TO-92 (92)	80	80	5	50 50	30 40	0.15	150 500	10 10	30	100 500	400	3	14/15	67
PN5855	TO-92 (92)	60	60	5	100 40	50 50	0.4	15 500	10 10	15	100 50		4		67

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Type No.	Case Style	V _{CB0} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	ICES* I _{CB0} @ V _{CB} (mA) Max	h _{FE} @ I _C & V _{CE} Min Max (mA) (V)	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Min Max	COB (pF) Max	f _T (MHz) Min Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
PN5857	TO-92 (92)	80	80	5	100 60	50 300 150 10 50 10 10 50 500 10 15 1A 10	0.4	1.3 15	15 15	15	100 50				67
TN4033	TO-237 (91)	80	80	5	50 60	75 0.1 5 100 300 100 5 70 500 5 25 1A 5	0.15 0.5	0.9 150 500	20 50	20	150 500 50				67
TN4036	TO-237 (91)	90	65	7	20 60	20 0.1 10 40 140 150 10 20 500 10	0.65	1.4 150	30	30	60 50				67
TN4037	TO-237 (91)	60	40	7	250 60	15 1 10 50 250 150 10	1.4	150	30	30	60 200 50				67
TN4314	TO-237 (91)	90	65		250 60	15 1 10 50 250 150 10	1.4	150	30	30	60 50				67
MPSA92	TO-92 (92)	300	300	5	250 200	25 1 10 40 10 10 25 30 10	0.5	0.9 20	6	6	50 10				76
MPSA93	TO-92 (92)	200	200	5	250 160	25 1 10 40 10 10 25 150 30 10	0.4	0.9 20	8	8	50 10				76
MPSW82	TO-92 (99)	200	200	5	250 200	25 1 10 40 10 10 25 30 10	0.5	0.9 20	6	6	50 10				76
2N6726	TO-237 (91)	40	30	5	100 40	55 10 1 60 100 1 50 200 1A 1	0.5	1A			50 50				77
2N6727	TO-237 (91)	50	40	5	100 50	55 10 1 80 100 1 50 250 1A 1	0.5	1A			50 500 50				77
92PU51	TO-237 (91)		30		100 40	50 1A 1 60 100 1 55 10 1	0.5	1A	30	30	50 50				77

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Medium Power (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CS0} (nA) Max	V _{CB} (V)	I _{FE} (mA) Min Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min Max	I _C (mA) Max	COB (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
92PU51A	TO-237 (91)		40		100	50	1A 1 60 100 1 55 10 1	0.5	1A	30	80	50					77
NSD202	TO-202 (55)	60	45	5	100	60	1A 5 40 500 5 50 150 100 5 40 10 5	0.2	0.9 100 1.2 500	30	60	50					77
NSD203	TO-202 (55)	60	45	5	100	60	1A 5 50 500 5 120 360 100 5 50 10 5	0.2	0.9 100 1.2 500	30	60	50					77
NSDU51	TO-202 (55)	40	30	5	100	30	1A 1 60 100 1 55 10 1	0.7	1A	30	50	50					77
NSDU51A	TO-202 (85)	50	40	5	100	40	1A 1 60 100 1 55 10 1	0.7	1A	30	50	50					77
D41D1	TO-202 (55)		30		100*	45	1A 2 50 150 100 2	0.5	1.5 500								78
D41D2	TO-202 (55)		30		100*	45	1A 2 120 300 100 2	0.5	1.5 500								78
D41D4	TO-202 (55)		45		100*	60	1A 2 50 150 100 2	0.5	1.5 500								78
D41D5	TO-202 (55)		45		100*	60	1A 2 120 360 100 2	0.5	1.5 500								78
D41D7	TO-202 (55)		60		100*	75	1A 2 50 150 100 2	1.0	1.5 500								78
D41D8	TO-202 (55)		60		100*	75	1A 2 120 360 100 2	1.0	1.5 500								78
D41D10	TO-202 (55)		75		100*	90	1A 2 50 150 100 2	1.0	1.5 500								78

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Medium Power (Continued)																			
Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CS} [*] I _{CB0} (mA) Max	V _{CB} (V)	I _{CE} [*] I _C (mA) Max	h _{FE} Min Max	I _C (mA) & V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) Max Min	I _C (mA) Max	COB (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.	
D41D11	TO-202 (55)		75		100*	90	100*	20 120	1A 360	1.0	1.5								78
D41D13	TO-202 (55)		75		100*	90	100*	50 150	100 2	1.0	1.5								78
D41D14	TO-202 (55)		75		100*	90	100*	120 360	100 2	1.0	1.5								78
D41E1	TO-202 (55)		30		100*	40	100*	10 50	1A 2	1.0	1.3								78
D41E5	TO-202 (55)		60		100*	70	100*	10 50	1A 2	1.0	1.3								78
D41E7	TO-202 (55)		80		100*	90	100*	10 50	1A 2	1.0	1.3								78
NSDU52	TO-202 (55)	60	40	5	100	40	100	30 50 50	500 150 10	0.4	1.3	20	150	20					78
2N6554	TO-202 (55)	60	60	5	100	40	100	25 60 80 80	500 1 250 1	1.0	1A	18	75	250	100				78*
2N6555	TO-202 (55)	60	60	5	100	60	100	25 60 80 60	500 1 250 1	1.0	1A	18	78	250	100				78
2N6556	TO-202 (55)	100	100	5	100	80	100	60 300 50	500 1 250 1	0.8	250	18	75	250	100				78

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Medium Power (Continued)

Type No.	Case Style	V _{CE0} (V) Min	V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CS} [*] I _{CB0} (nA) Max	V _{CB} (V)	I _{hFE} Min	I _{hFE} Max	I _C (mA)	V _{CE} (V)	I _{hFE} Min	I _{hFE} Max	V _{BE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	I _C (mA) Max	COB (pF) Max	f _T (MHz) Min	f _T (MHz) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
2N6706	TO-237 (90)	60	45	5	100	60	40	50	2	1.0	40	250	500	1A	50	30	50	50				78
2N6709	TO-237 (90)	80	60	5	100	80	40	50	2	1.0	40	250	500	1A	50	30	50	50				78
2N6710	TO-237 (90)	100	80	5	100	100	40	50	2	1.0	40	250	500	1A	50	30	50	50				78
MPS6727	TO-92 (99)	50	40	5	100	50	50	100	1	0.5	60	250	1A	1.2	30	30						78
NSD6180	TO-202 (55)		75		500	80	10	1A	2	0.5	40	250	500	2	30	30	50	50				78
NSD6181	TO-202 (55)		50		500	60	10	1A	2	0.5	40	250	500	2	30	30	50	50				78
NSDU55	TO-202 (55)	60	60	4	100	60	20	500	1	0.35	50	250	1	250	30	30	50	200				78
PE8550	TO-92 (92)	30	25	6	100	20	65	200	1	0.15	65	200	500	1	40	40	100	50				78
TN4234	TO-237 (91)	40	40	7	0.1 mA	40	40	100	1	0.6	30	150	250	1A	100	100					T-31-01	78
TN4235	TO-237 (91)	60	60	7	0.1 mA	60	30	150	1	0.6	20	500	1	1A	100	100						78

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Medium Power (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	ICES* ICB0 @ (mA) Max	V _{CB} (V)	h _{FE} @ Min Max	IC (mA) & V _{CE} (V)	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	IC (mA) Max	COB (pF) Max	f _T (MHz) @ Min Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
TN4236	TO-237 (91)	80	80	7	0.1 mA	80	40 30 20 10	100 250 500 1A	0.6	1.5	1A	100					78
2N6728	TO-237 (91)	60	60	5	100	40	80 50 20	50 250 500	0.35		250		50				79
2N6729	TO-237 (91)	80	80	5	100	60	80 50 20	50 250 500	0.35		250		50				79
2N6730	TO-237 (91)	100	100	5	100	80	80 50 20	50 250 500	0.35		250		50				79
2N6732	TO-237 (91)	100	80	5	100	80	100 300	10 350	0.35		350		50				79
92PU55	TO-237 (91)		60		100	40	20 50 80	500 250 50	0.35		250	30	50				79
92PU56	TO-237 (91)		80		100	60	20 50 80	500 250 50	0.35		250	30	50				79
92PU57	TO-237 (91)		100		100	80	20 50 80	500 250 50	0.35		250	30	50				79
NSD204	TO-202 (55)	100	80	7	100	100	10 50 20	1A 100 10	0.2	0.9	100	30	60			T-31-01	79
NSD205	TO-202 (55)	100	80	7	100	100	10 120 20	1A 360 10	0.2	0.9	100	30	60				79

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Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CB0} (mA) Max	I _{CE0} (mA) Max	I _{CB0} (mA) Max	h _{FE} Min	h _{FE} Max	I _C (mA) @ V _{CE} (V)	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	I _C (mA) Max	COB (pF) Max	f _T (MHz) Min	f _T (MHz) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
NSD206	TO-202 (55)	140	100	7	100	140	25	500	5	5	0.2	0.9	100	30	60	50				79
NSDU56	TO-202 (55)	80	80	4	100	80	20	500	1	1	0.35	1.2	500	30	50	200				79
NSDU57	TO-202 (55)	100	100	4	100	100	20	500	1	1	0.35		250	30	50	200				79

TEST CONDITIONS:

Note 1: I_C = 50 mA, V_{CE} = 100V, I_B = I_B² = 5 mA

Note 2: I_C = 500 μA, V_{CE} = 10V, f = 1 kHz

Note 3: I_C = 500 mA, I_B = I_B² = 50 mA

Note 4: I_C = 150 mA, V_{CE} = 30V, I_B = I_B² = 15 mA

Note 5: I_C = 100 μA, V_{CE} = 10V, f = 1 kHz

Note 6: I_C = 500 mA, V_{CE} = 30V, I_B = I_B² = 50 mA

Note 7: I_C/I_B = 8