

PNP Transistors

Medium Power



Type No.	Case Style	V _{CE0} (V) Min	V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CS} [*] I _{CB0} (mA) Max	V _{CB} (V)	I _{FE} @ I _C & V _{CE} (mA) Min Max	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) @ I _C (mA) Max Min 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	15 25 40 30	1A 5 500 5 100 5 0.1 5	20	100 400	400		(Note 3)	67	
2N4031	TO-39	80	80	5	50	60	10 25 40 30	1A 5 500 5 100 5 0.1 5	20	100 400	400		(Note 3)	67	
2N4032	TO-39	60	60	5	50	50	40 70 100 75	1A 5 500 5 100 5 0.1 5	20	150 500	400		(Note 3)	67	
2N4033 also Avail. JAN/TX/V Versions	TO-39	80	80	5	50	60	25 70 100 75	1A 5 500 5 100 5 0.1 5	20	150 500	400		(Note 3)	67	
2N4036	TO-39	90	85	7	20	60	20 40 20	500 10 150 10 0.1 10	30	60 50	700		(Note 4)	67	
2N4037	TO-39	60	40	7	250	60	50 15	150 10 1 10	30	60 50				67	
2N4314	TO-39	90	65		250	60	50 15	150 10 1 10	30	60 50				67	
2N4354		Same as PN4354													67
2N4355		Same as PN4355													67
2N4356		Same as PN4356													67

Medium Power (Continued)

Type No.	Case Style	V _{CE0} (V) Min	V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CE0} [*] (mA) Max	V _{CB} (V) Max	I _{FE} @ I _C (mA) Min	I _{FE} @ I _C (mA) Max	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	I _C (mA) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.	
MPSA55	TO-92 (92)	60	4	100	60	50	100	1	0.25	100	100		50	100					67	
MPSA56	TO-92 (92)	80	4	100	80	50	100	1	0.25	100	100		50	100					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	5	100	20	50	200	1	0.5	500	500	30	60	10					67	
PN4354	TO-92 (92)	60	5	50	50	30	500	10	0.15	0.9	150	30	100	500	50	400	3	14/15	67	
PN4355	TO-92 (92)	60	5	50	50	75	100	10	0.5	1.1	500		100	500	50	400	3	14/15	67	
PN4356	TO-92 (92)	80	5	50	50	30	500	10	0.15	0.9	150	30	100	500	50	400	3	14/15	67	
PN5855	TO-92 (92)	60	5	100	40	50	300	10	0.4	1.3	15	15	100	50	50		4		67	

T-31-01

PNP Transistors

4

PNP Transistors

Medium Power (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	ICES* I _{CB0} (mA) Max	h _{FE} Min	I _C (mA) Max	V _{CE} (V) Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	I _C (mA) Max	COB (pF) Max	f _T (MHz) Min	I _C (mA) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
PN5857	TO-92 (92)	80	80	5	100	50	300	10	0.4	1.3	15	15	100	50				67
TN4033	TO-237 (91)	80	80	5	50	75	0.1	5	0.15	0.9	150	20	150	50				67
TN4036	TO-237 (91)	90	65	7	20	40	140	10	0.65	1.4	150	30	60	50				67
TN4037	TO-237 (91)	60	40	7	250	15	250	10	1.4		150	30	60	200				67
TN4314	TO-237 (91)	90	65		250	15	250	10	1.4		150	30	60	50				67
MPSA92	TO-92 (92)	300	300	5	250	25	1	10	0.5	0.9	20	6	50	10				76
MPSA93	TO-92 (92)	200	200	5	250	40	10	10	0.4	0.9	20	8	50	10				76
MPSW92	TO-92 (99)	200	200	5	250	25	150	10	0.5	0.9	20	6	50	10				76
2N6726	TO-237 (91)	40	30	5	100	55	10	1	0.5		1A		50	50				77
2N6727	TO-237 (91)	50	40	5	100	55	10	1	0.5		1A		50	500				77
92PU51	TO-237 (91)		30		100	60	100	1	0.5		1A	30	50	50				77

T-31-01

Medium Power (Continued)														
Type No.	Case Style	V _{CE0} (V) Min	V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CS} [*] I _{CB0} (mA) Max	I _{CS} [*] I _{CB0} (mA) Max	h _{FE} @ I _C & V _{CE} (V) Min Max	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) @ I _C (mA) Max Min	COB (pF) Max	f _T (MHz) @ I _C (mA) Min Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
92PU51A	TO-237 (91)		40		100	50	50 1A 1 100 1 1	0.5	30	80				77
NSD202	TO-202 (55)		45	5	100	60	25 1A 5 500 5 40 150 100 5 40 10 5	0.2	30	60				77
NSD203	TO-202 (55)		45	5	100	60	30 1A 5 500 5 120 360 100 5 50 10 5	0.2	30	60				77
NSDU51	TO-202 (55)		30	5	100	30	50 1A 1 100 1 1 60 100 1 55 10 1	0.7	30	50				77
NSDU51A	TO-202 (85)		40	5	100	40	50 1A 1 100 1 1 60 100 1 55 10 1	0.7	30	50				77
D41D1	TO-202 (55)		30		100*	45	10 1A 2 50 150 100 2	0.5						78
D41D2	TO-202 (55)		30		100*	45	20 1A 2 120 300 100 2	0.5						78
D41D4	TO-202 (55)		45		100*	60	10 1A 2 50 150 100 2	0.5						78
D41D5	TO-202 (55)		45		100*	60	20 1A 2 120 360 100 2	0.5						78
D41D7	TO-202 (55)		60		100*	75	10 1A 2 50 150 100 2	1.0						78
D41D8	TO-202 (55)		60		100*	75	20 1A 2 120 360 100 2	1.0						78
D41D10	TO-202 (55)		75		100*	90	10 1A 2 50 150 100 2	1.0						78

T-31-01

PNP Transistors

4

PNP Transistors

Medium Power (Continued)																			
Type No.	Case Style	V _{CB0} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	ICES* ICBO @ (mA) Max	hFE Min	hFE 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	f _T (MHz) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
D41D11	TO-202 (55)		75		100*	20	360	1A 100	2 2	1.0	1.5	500							78
D41D13	TO-202 (55)		75		100*	50	150	100	2 2	1.0	1.5	500							78
D41D14	TO-202 (55)		75		100*	120	360	100	2 2	1.0	1.5	500							78
D41E1	TO-202 (55)		30		100*	10	50	1A 100	2 2	1.0	1.3	1A							78
D41E5	TO-202 (55)		60		100*	10	50	1A 100	2 2	1.0	1.3	1A							78
D41E7	TO-202 (55)		80		100*	10	50	1A 100	2 2	1.0	1.3	1A							78
NSDU52	TO-202 (55)	60	40	5	100	30	300	500 150 10	10 10	0.4	1.3	150 20	20	150	20				78
2N6554	TO-202 (55)	60	60	5	100	25	60	500 1 250 1 80 300 50 1 80 10 1	1 1	1.0	1A	100 250 100	18	75 250	100				78*
2N6555	TO-202 (55)	60	60	5	100	25	60	500 1 250 1 80 300 50 1 60 10 1	1 1	1.0	1A	100 250 100	18	78 250	100				78
2N6556	TO-202 (55)	100	100	5	100	25	60	500 1 250 1 80 300 50 1 60 10 1	1 1	1.0	1A	100 250 100	18	75 250	100				78

T-31-01

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Medium Power (Continued)																
Type No.	Case Style	V _{CSO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	I _{CS} [*] I _{CS0} (mA) Max	V _{CB} (V)	h _{FE} @ I _C & V _{CE} (V)	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Min	I _C (mA) Max	COB (PF) Max	f _T (MHz) @ I _C (mA) Max	t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.
2N6706	TO-237 (90)	60	45	5	100 60	40 250 500 2	1.0	1.0	1A	50	30	50				78
2N6709	TO-237 (90)	80	60	5	100 80	40 250 500 2	0.5	0.5	500	50	30	50				78
2N6710	TO-237 (90)	100	80	5	100 100	40 250 500 2	1.0	1.0	1A	50	30	50				78
MPS6727	TO-92 (99)	50	40	5	100 50	60 250 1A 1	0.5	0.5	1.2 1A	30	30					78
NSD6180	TO-202 (55)		75		500 80	10 250 500 2	0.5	0.5	1.2 500	30	30	50				78
NSD6181	TO-202 (55)		50		500 60	10 250 500 2	0.5	0.5	1.2 500	30	30	50				78
NSDU55	TO-202 (55)	60	60	4	100 60	20 500 1	0.35	0.35	250	30	30	50				78
PE8550	TO-92 (92)	30	25	6	100 20	50 200 10 1	0.15	0.15	0.9 200	40	40	100				78
TN4234	TO-237 (91)	40	40	7	0.1 mA 40	40 100 1	0.6	0.6	1.5 1A	100	100				T-31-01	78
TN4235	TO-237 (91)	60	60	7	0.1 mA 60	40 100 1	0.6	0.6	1.5 1A	100	100					78

PNP Transistors

4

PNP Transistors

Medium Power (Continued)																			
Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	ICES* I _{CB0} (mA) Max	V _{CB} (V) 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.
TN4236	TO-237 (91)	80	80	7	0.1 mA	80	40	100	1	0.6	1.5	1A	100						78
2N6728	TO-237 (91)	60	60	5	100	40	80	50	1	0.35		250		50					79
2N6729	TO-237 (91)	80	80	5	100	60	80	50	1	0.35		250		50					79
2N6730	TO-237 (91)	100	100	5	100	80	80	50	1	0.35		250		50					79
2N6732	TO-237 (91)	100	80	5	100	80	100	300	2	0.35		350		50					79
92PU55	TO-237 (91)		60		100	40	20	500	1	0.35		250	30	50	200				79
92PU56	TO-237 (91)		80		100	60	20	500	1	0.35		250	30	50	200				79
92PU57	TO-237 (91)		100		100	80	20	500	1	0.35		250	30	50	200				79
NSD204	TO-202 (55)	100	80	7	100	100	10	1A	5	0.2	0.9	100	30	60	50			T-31-01	79
NSD205	TO-202 (55)	100	80	7	100	100	20	360	5	0.2	0.9	100	30	60	50				79

T-31-01

PNP Transistors

Medium Power (Continued)

Type No.	Case Style	V _{CB0} (V)		V _{CEO} (V)		V _{EB0} (V)		I _{CS} [*] (nA)		h _{FE} @ I _C & V _{CE} (V)		V _{CE(SAT)} (V) & V _{BE(SAT)} (V) @ I _C (mA)		f _T (MHz) @ I _C (mA)		t _{OFF} (ns) Max	NF (dB) Max	Test Conditions	Process No.								
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max												
NSD206	TO-202 (55)	140	100	7	100	140	100	140	25	500	5	0.2	0.9	100	50	79											
																				20	150	100	5	0.5	1.2	500	200
																				20	10	5	0.35	250	1	30	79
NSDU56	TO-202 (55)	80	80	4	80	80	100	80	20	500	1	0.35	250	200	79												
																				50	250	1	30	79			
																				80	50	1	0.35	250	1	30	79
NSDU57	TO-202 (55)	100	100	4	100	100	100	20	500	1	0.35	250	200	79													
																				50	250	1	30	79			
																				80	50	1	0.35	250	1	30	79

TEST CONDITIONS:

Note 1: I_C = 50 mA, V_{CC} = 100V, I_B¹ = I_B² = 5 mA.
 Note 2: I_C = 500 μA, V_{CE} = 10V, f = 1 kHz.
 Note 3: I_C = 500 mA, I_B¹ = I_B² = 50 mA.
 Note 4: I_C = 150 mA, V_{CC} = 30V, I_B¹ = I_B² = 15 mA.

Note 5: I_C = 100 μA, V_{CC} = 10V, f = 1 kHz.
 Note 6: I_C = 500 mA, V_{CC} = 30V, I_B¹ = I_B² = 50 mA.
 Note 7: I_C/I_B = 8.

4