

PNP TRANSISTORS



TO-92/TO-226AA

'2N' and 'TP' DEVICE TYPES
ELECTRICAL CHARACTERISTICS at $T_A = 25^\circ\text{C}$

Device Type	I_C Max. (mA)	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	I_{CBO}		DC Current Gain				$V_{CE(sat)}$		f_T		C_{ob}^1 (pF)	t_s^1 (ns)	NF ¹ (dB)	Pinning 1, 2, 3
					Max. (nA)	@ V_{CB} (V)	h_{FE} Min.	h_{FE} Max.	@ I_C (mA)	@ V_{CE} (V)	Max. (V)	@ I_C (mA)	Min. (MHz)	@ I_C (mA)				
TP2907	500	60	40	5.0	20	50	100	300	150	10	0.4	150	200	50	8.0	100	—	EBC
TP2907A	500	60	60	5.0	10	50	100	300	150	10	0.4	150	200	50	8.0	100	—	EBC
2N3906	200	40	40	5.0	—	—	100	300	10	1.0	0.25	10	250	10	4.5	225	4.0	EBC
2N4402	500	40	40	5.0	—	—	50	150	150	2.0	0.4	150	150	20	10	225	—	EBC
2N4403	500	40	40	5.0	—	—	100	300	150	2.0	0.4	150	200	20	10	225	—	EBC
TP4413	500	40	30	5.0	10	30	120	—	1.0	5.0	0.2	1.0	20	—	8.0	—	—	EBC
TP4415	500	40	20	5.0	10	30	100	—	1.0	5.0	0.2	1.0	20	—	8.0	—	—	EBC
2N5086	100	50	50	—	50	35	150	500	0.1	5.0	0.3	10	40	0.5	4.0	—	3.0	EBC
2N5087	100	50	50	—	50	35	250	800	0.1	5.0	0.3	10	40	0.5	4.0	—	2.0	EBC
2N5400	300	130	120	5.0	50	100	40	180	10	5.0	0.2	10	100	10	6.0	—	8.0	EBC
2N5401	300	160	150	5.0	50	120	60	240	10	5.0	0.2	10	100	10	6.0	—	8.0	EBC
MPSA55	800	60	60	4.0	100	60	50	—	100	1.0	0.25	100	50	100	—	—	—	EBC
MPSA56	800	80	80	4.0	100	80	50	—	100	1.0	0.25	100	50	100	—	—	—	EBC
MPSA70	100	—	40	4.0	100	30	40	100	5.0	10	0.25	10	125	5.0	4.0	—	—	EBC

NOTES: 1) Maximum at typical JEDEC conditions.

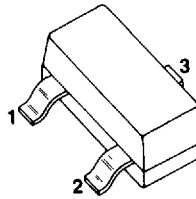
2) μA .

3) $V_{(BR)CES}/I_{CES}$, as applicable.

4) mA.

5) $V_{(BR)CER}$ at $R = 10\Omega$.

PNP TRANSISTORS



SOT-23/TO-236AB

ELECTRICAL CHARACTERISTICS at $T_A = 25^\circ\text{C}$

Device Type	Marking	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	I_{CBO}		DC Current Gain				$V_{CE(sat)}$		f_T		C_{ob}^1 (pF)	t_s^1 (ns)	NF ¹ (dB)	Pinning 1, 2, 3
					Max. @ V_{CB} (nA)	(V)	h_{FE} Min.	h_{FE} Max.	@ I_C (mA)	@ V_{CE} (V)	Max. @ I_C (V)	(mA)	Min. @ I_C (MHz)	(mA)				
BCW29	C1	30 ³	32	5.0	100	20	120	260	2.0	5.0	0.3	10	—	—	7.0	—	10	BEC*
BCW30	C2	30 ³	32	5.0	100	20	215	500	2.0	5.0	0.3	10	—	—	7.0	—	10	BEC*
BCW61A	BA	32 ³	32	5.0	20	32	120	220	2.0	5.0	0.25	10	—	—	6.0	800	6.0	BEC*
BCW61B	BB	32 ³	32	5.0	20	32	180	310	2.0	5.0	0.25	10	—	—	6.0	800	6.0	BEC*
BCW61C	BC	32 ³	32	5.0	20	32	250	460	2.0	5.0	0.25	10	—	—	6.0	800	6.0	BEC*
BCW61D	BD	32 ³	32	5.0	20	32	380	630	2.0	5.0	0.25	10	—	—	6.0	800	6.0	BEC*
BCW67A	DA	45 ³	32	5.0	20	32	100	250	100	1.0	0.7	500	100	20	18	—	10	BEC*
BCW67B	DB	45 ³	32	5.0	20	32	160	400	100	1.0	0.7	500	100	20	18	—	10	BEC*
BCW68F	DF	60 ³	45	5.0	20	45	100	250	100	1.0	0.7	500	100	20	18	—	10	BEC*
BCW68G	DG	60 ³	45	5.0	20	45	160	400	100	1.0	0.7	500	100	20	18	—	10	BEC*
BCW69	H1	50 ³	45	5.0	100	20	120	260	2.0	5.0	0.3	10	—	—	7.0	—	10	BEC*
BCW70	H2	50 ³	45	5.0	100	20	215	500	2.0	5.0	0.3	10	—	—	7.0	—	10	BEC*
BCX17	T1	50 ³	45	5.0	100	20	100	600	100	1.0	0.62	500	—	—	8.0	—	—	BEC*
BCX18	T2	30 ³	25	5.0	100	20	100	600	100	1.0	0.62	500	—	—	8.0	—	—	BEC*
BCX71G	BG	453	45	5.0	20	45	120	220	2.0	5.0	0.25	10	—	—	6.0	—	—	BEC*
BCX71H	BH	45 ³	45	5.0	20	45	180	310	2.0	5.0	0.25	10	—	—	6.0	—	—	BEC*
BCX71J	BJ	45 ³	45	5.0	20	45	250	460	2.0	5.0	0.25	10	—	—	6.0	—	—	BEC*
BCX71K	BK	45 ³	45	5.0	20	45	380	630	2.0	5.0	0.25	10	—	—	6.0	—	—	BEC*
TMPT2907	2B	60	40	5.0	20	50	100	300	150	10	0.4	150	200	50	8.0	100	—	BEC*
TMPT2907A	2F	60	60	5.0	10	50	100	300	150	10	0.4	150	200	50	8.0	100	—	BEC*
TMPT3906	2A	40	40	5.0	—	—	100	300	10	1.0	0.25	10	250	10	4.5	225	4.0	BEC*
TMPT4402	2W	40	40	5.0	—	—	50	150	150	2.0	0.4	150	150	20	10	225	—	BEC*
TMPT4403	2T	40	40	5.0	—	—	100	300	150	2.0	0.4	150	200	20	10	225	—	BEC*
TMPT5086	2P	50	50	—	50	35	150	500	0.1	5.0	0.3	10	40	0.5	4.0	—	3.0	BEC*
TMPT5087	2Q	50	50	—	50	35	250	800	0.1	5.0	0.3	10	40	0.5	4.0	—	2.0	BEC*
TMPT5401	2L	160	150	5.0	50	120	60	240	10	5.0	0.2	10	100	10	6.0	—	8.0	BEC*
TMPTA55	2H	60	60	4.0	100	60	50	—	100	1.0	0.25	100	50	100	—	—	—	BEC*
TMPTA56	2G	80	80	4.0	100	80	50	—	100	1.0	0.25	100	50	100	—	—	—	BEC*
TMPTA70	2C	—	40	4.0	100	30	40	100	5.0	10	0.25	10	125	5.0	4.0	—	—	BEC*

NOTES: * Reversed pinning (E-B-C) available on special order—add suffix letter 'R' to part number.

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- 1) Maximum at typical JEDEC conditions.
- 2) μA .
- 3) $V_{(BR)CES}/I_{CES}$, as applicable.
- 4) mA.
- 5) $V_{(BR)CER}$ at $R = 10\Omega$.