

NPN Transistors

'TH' 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)	Process
					Max. (nA)	αV_{CB} (V)	h_{FE} Min.	h_{FE} Max.	αI_C (mA)	αV_{CE} (V)	Max. (V)	αI_C (mA)	Min. (MHz)	αI_C (mA)				
THC3414	500	25	25	5.0	100	25	75	225	2.0	4.5	0.3	50	—	—	—	—	—	BBC
THC3415	500	25	25	5.0	100	25	180	540	2.0	4.5	0.3	50	—	—	—	—	—	BBC
THC3416	500	50	50	5.0	100	50	75	225	2.0	4.5	0.3	50	—	—	—	—	—	BBC
THC3417	500	50	50	5.0	100	50	180	540	2.0	4.5	0.3	50	—	—	—	—	—	BBC
THC3444	800	80	50	5.0	500	60	20	60	500	1.0	0.6	500	150	50	12	70	—	BHB
THC3498	500	100	100	6.0	50	50	40	120	150	10	0.6	300	150	20	10	—	—	AJA
THC3499	500	100	100	6.0	50	50	100	300	150	10	0.6	300	150	20	10	—	—	AJA
THC3500	300	150	150	6.0	50	75	40	120	150	10	0.4	150	150	20	8.0	—	—	AJA
THC3501	300	150	150	6.0	50	75	100	300	150	10	0.4	150	150	30	8.0	—	—	AJA
THC3563	50	30	15	2.0	50	15	20	200	15	10	—	—	600	8.0	1.7	—	—	DMA
THC3564	50	30	15	4.0	50	15	20	500	15	10	0.3	20	400	15	3.5	—	—	DMA
THC3565	100	30	25	6.0	50	25	150	600	1.0	10	0.35	1.0	40	1.0	4.0	—	—	BAA
THC3566	500	40	30	5.0	50	20	150	600	10	10	1.0	100	—	—	25	—	—	BBC
THC3567	800	80	40	5.0	50	40	40	120	150	1.0	0.25	150	60	50	20	—	—	DAC
THC3568	800	80	60	5.0	50	40	40	120	150	1.0	0.25	150	60	50	20	—	—	DAC
THC3569	800	80	40	5.0	50	40	100	300	150	1.0	0.25	150	60	50	20	—	—	DAC
THC3641	500	60 ³	30	5.0	50 ³	50	40	120	150	10	0.22	150	250	50	8.0	—	—	BBC
THC3642	500	60	45	5.0	50 ³	50	40	120	150	10	0.22	150	250	50	8.0	—	—	BBC
THC3643	500	60	30	5.0	50 ³	50	100	300	150	10	0.22	150	250	50	8.0	—	—	BBC
THC3646	300	40 ³	15	5.0	500 ³	20	30	120	30	0.4	0.2	30	350	30	5.0	28	—	BJB
THC3691	100	35	20	4.0	50	15	40	160	10	1.0	0.7	10	200	10	3.5	—	—	BAA
THC3692	100	35	20	4.0	50	15	100	400	10	1.0	0.7	10	200	10	3.5	—	—	BAA
THC3693	100	45	45	4.0	50	35	40	160	10	10	—	—	200	10	3.5	—	4.0	FFB
THC3694	100	45	45	4.0	50	30	100	400	10	1.0	—	—	200	10	6.0	—	—	FFB
THC3700	800	140	80	7.0	10	90	100	300	150	10	0.2	150	100	50	12	—	4.0	DAC
THC3701	800	140	80	7.0	10	90	40	120	150	10	0.2	150	80	50	12	—	—	DSA
THC3704	500	50	30	5.0	100	20	100	300	50	2.0	0.6	100	100	50	12	—	—	BBC
THC3705	500	50	30	5.0	100	20	50	150	50	2.0	0.8	100	100	50	12	—	—	BBC
THC3706	500	40	20	5.0	100	20	30	600	50	2.0	1.0	100	100	50	12	—	—	BBC
THC3707	100	30	30	6.0	100	20	100	400	0.1	5.0	1.0	10	—	—	—	—	5.0	BAA
THC3708	100	30	30	6.0	100	20	45	660	1.0	5.0	1.0	10	—	—	—	—	—	BAA
THC3709	100	30	30	6.0	100	20	45	165	1.0	5.0	1.0	10	—	—	—	—	—	BAA
THC3710	100	30	30	6.0	100	20	90	330	1.0	5.0	1.0	10	—	—	—	—	—	BAA
THC3711	100	30	30	6.0	100	20	180	660	1.0	5.0	1.0	10	—	—	—	—	—	BAA
THC3721	500	18	18	5.0	500	18	60	660	2.0	10	—	—	—	—	12	—	—	BBC
THC3724	800	50	30	6.0	1700	40	60	150	100	1.0	0.32	300	300	50	12	60	—	BHB
THC3724A	800	50	30	6.0	500	40	60	150	100	1.0	0.32	300	300	50	12	50	—	BHB
THC3725	800	80	50	6.0	1700	60	60	150	100	1.0	0.4	300	300	50	10	60	—	BHB
THC3725A	800	80	50	6.0	500	60	60	150	100	1.0	0.4	300	300	50	10	50	—	BHB
THC3742	500	300	300	7.0	200	200	20	200	30	10	0.75	10	60	10	6.0	—	—	BLA
THC3793	800	40	20	5.0	500	15	20	120	10	10	0.4	10	100	10	10	—	—	DAC
THC3794	800	40	20	5.0	500	15	100	600	10	10	0.6	10	100	10	10	—	—	DAC

NOTES:

- 1) Maximum at typical JEDEC conditions.
- 2) μA .

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

4) mA.

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