

CASE TO-63
IC(MAX) = 20 to 60A
VCEO(SUS) = 40-300V

NPN Power Transistors

Type No.	VCEO (max) (V)	IC (max) (A)	hFE@IC/VCE (min-max @ A/V)	VCE(SAT) @ IC/IB (V @ A/A)	VBE @ IC/VCE (V @ A/V)	VBE (SAT) @ IC/IB (V @ A/V)	ICEV @ VCE (mA @ V)	PD@ TC=100°C (Watts)	Ia/b@VCE t=1 sec (A @ V)	fr (MHz)	ton @ IC/IB (µs @ A/A)	toff @ IC/IB (µs @ A/A)
2N1936	60	20	10-50 @ 10/10	.75 @ 10/1.6	1.25 @ 10/3		10 @ 120	150	5 @ 30	4	.5 @ 15/1.2	1.5 @ 15/1.2
2N1937	80	20	10-50 @ 10/10	.75 @ 10/1.6	1.25 @ 10/3		10 @ 120	150	5 @ 30	4	.5 @ 15/1.2	1.5 @ 15/1.2
2N3265	90	20	25-55 @ 15/2	1 @ 20/2		1.8 @ 20/2	20 @ 150	100	.35 @ 75	20	.5 @ 15/1.2	2 @ 15/1.2
2N3266	60	20	20-80 @ 15/3	1.6 @ 20/2		2.2 @ 20/2	20 @ 120	100	.70 @ 50	20	.5 @ 15/1.2	2 @ 15/1.2
2N3846	200	20	40-200 @ 5/3	.75 @ 10/1.6	1.25 @ 10/3		2 ^a @ 300	150	7.5 @ 20	10	4 @ 10/2	7 @ 10/2
2N3847	300	20	40-200 @ 5/3	.75 @ 10/1.6	1.25 @ 10/3		2 ^a @ 400	150	7.5 @ 20	10	4 @ 10/2	7 @ 10/2
2N3848	200	20	40-200 @ 5/4	1 @ 15/2	1.4 @ 15/4		2 ^a @ 300	150	7.5 @ 20	10	4 @ 10/2	7 @ 10/2
2N3849	300	20	40-200 @ 5/4	1 @ 15/2	1.4 @ 15/4		2 ^a @ 400	150	7.5 @ 20	10	4 @ 10/2	7 @ 10/2
2N4002	80	30	20-80 @ 15/4	1.2 @ 30/4	1.8 @ 30/4		1 ^a @ 90	100	8 @ 12.5	30	1 @ 15/1.5	3 @ 15/1.5
2N4003	100	30	20-80 @ 15/4	1.2 @ 30/4	1.8 @ 30/4		1 ^a @ 110	100	8 @ 12.5	30	1 @ 15/1.5	3 @ 15/1.5
2N4210	60	20	20-100 @ 10/6	1 @ 10/1	1.6 @ 10/6		.5 ^a @ 80	100	3.3 ^a @ 30	10	.5 @ 15/1.2	1.5 @ 15/1.2
2N4211	80	20	20-100 @ 10/6	1 @ 10/1	1.6 @ 10/6		.5 ^a @ 100	100	3.3 ^a @ 30	10	.5 @ 15/1.2	1.5 @ 15/1.2
2N5539	130	20	20-75 @ 10/5	.8 @ 15/1.5		1.5 @ 15/1.5	.2 @ 175	100	3.3 @ 30	20	.5 @ 10/1	2 @ 10/1
2N5733	80	30	30-300 @ 10/2	1.2 @ 20/2	1.5 ^a @ 20/2		1 ^a @ 100	100	6 ^a @ 25	30	.7 @ 10/1	4 @ 10/1
2N5968	100	30	30-120 @ 10/10	.8 @ 10/1		2.5 @ 40/4	.5 ^a @ 100	125	5 @ 25	10	.5 @ 30/3	1 @ 30/3
2N6046	60	20	20-100 @ 10/6	2 @ 20/1.33		2 @ 20/1.33	5 @ 70	114	5.2 @ 22	30	.6 @ 20/1.33	.9 @ 20/1.33
2N6047	100	20	20-100 @ 20/4	2 @ 20/1.33		2 @ 20/1.33	5 @ 110	114	5.2 @ 22	30	.6 @ 20/1.33	.9 @ 20/1.33
2N6048	140	20	20-100 @ 20/4	2 @ 20/1.33		2 @ 20/1.33	5 @ 150	114	5.2 @ 22	30	.6 @ 20/1.33	.9 @ 20/1.33
2N6062	100	50	20-120 @ 20/10	1 @ 20/2		2.5 @ 60/6	.5 ^a @ 100	150	6 @ 25	10	.5 @ 40/4	1 @ 40/4
2N6215	80	50	25-150 @ 25/2	1.5 @ 50/5		1.5 @ 25/1.25	.2 @ 100	125	.7 @ 18	20	1 @ 25/1.25	1.25 @ 25/1.25
2N6278	100	50	30-120 @ 20/4	1.2 @ 20/2		1.8 @ 20/2	.01 @ 120	143	30 @ 8.3	30	.35 @ 20/2	1.05 @ 20/2
2N6279	120	50	30-120 @ 20/4	1.2 @ 20/2		1.8 @ 20/2	.01 @ 140	143	30 @ 8.3	30	.35 @ 20/2	1.05 @ 20/2
2N6280	140	50	30-120 @ 20/4	1.2 @ 20/2		1.8 @ 20/2	.01 @ 160	143	30 @ 8.3	30	.35 @ 20/2	1.05 @ 20/2
2N6281	150	50	30-120 @ 20/4	1.2 @ 20/2		1.8 @ 20/2	.01 @ 180	143	30 @ 8.3	30	.35 @ 20/2	1.05 @ 20/2
2N6324	200	30	40-150 @ 5/5	1.5 @ 20/2	2.5 @ 30/5		2 ^a @ 300	200	4.5 @ 44	10	.6 ^a @ 20/2	3 ^a @ 20/2
2N6325	300	30	30-150 @ 5/5	1.5 @ 20/2	2.5 @ 30/5		2 ^a @ 400	200	4.5 @ 44	10	.6 ^a @ 20/2	3 ^a @ 20/2

NOTES: b) ICBO @ VCB (mA @ V) g) ICES @ VCE (mA @ V) i) (typical)

CASE TO-114
IC(MAX) = 40-100A
VCEO(SUS) = 40 to 160V

Type No.	VCEO (max) (V)	IC (max) (A)	hFE@IC/VCE (min-max @ A/V)	VCE(SAT) @ IC/IB (V @ A/A)	VBE @ IC/VCE (V @ A/V)	ICEV @ VCE (mA @ V)	PD@ TC=100°C (Watts)	Ia/b@VCE t=1 sec (A @ V)	fr (MHz)	ton @ IC/IB (µs @ A/A)	toff @ IC/IB (µs @ A/A)
2N3149	80	70	>10 @ 50/3	1.5 @ 50/10	2.5 @ 10/10	2 @ 80	200		.1	10 @ 50/10	20 @ 50/10
2N3150	100	70	>10 @ 50/3	1.5 @ 50/10	2.5 @ 50/10	2 @ 100	200		.1	10 @ 50/10	20 @ 50/10
2N3151	150	70	>10 @ 50/3	1.5 @ 50/10	2.5 @ 50/10	2 @ 150	200		.1	10 @ 50/10	20 @ 50/10
2N4865	80	90	10-40 @ 70/5	2.5 @ 70/7	2.5 @ 70/7	.5 @ 100	200	10 @ 20	10	2 @ 70/7	2 @ 70/7
2N4866	120	90	10-40 @ 70/5	2.5 @ 70/7	2.5 @ 70/7	.5 @ 140	200	10 @ 20	10	2 @ 70/7	2 @ 70/7
2N4950	60	70	>10 @ 50/3	1.5 @ 50/10	2.5 @ 50/10	2 @ 60	200		.1	10 @ 50/10	20 @ 50/10
2N5250	100	90	10-40 @ 70/5	2.5 @ 70/7	2.5 @ 70/7	.5 @ 125	200	10 @ 20	10	2 @ 70/7	2 @ 70/7
2N5251	150	90	10-40 @ 70/5	2.5 @ 70/7	2.5 @ 70/7	.5 @ 180	200	10 @ 20	10	2 @ 70/7	2 @ 70/7
2N5489	100	40	15-60 @ 40/6	1.5 @ 40/8	2.5 @ 40/6	2 ^a @ 125	200		.5	2 @ 70/7	2 @ 70/7
2N5587	120	80	10-30 @ 80/2	2 @ 80/8	2.5 @ 80/8	2 ^a @ 160	200		.5	2 @ 70/7	2 @ 70/7
2N5588	160	80	10-30 @ 80/2	2 @ 80/8	2.5 @ 80/8	2 ^a @ 160	200		.5	2 @ 70/7	2 @ 70/7
2N5927	120	100	10-40 @ 70/2	75 @ 70/7	1.5 ^a @ 70/2	2 @ 150	200		1	2.5 @ 50/10	5.5 @ 50/10

NOTES: g) ICES @ VCE (V @ A/V) i) VBE @ IC/VCE (V @ A/V) i) (typical)