

I_C (av) max. A	V_{CE0} max. V	V_{CES} (V_{CBO}^*) max. V	$V_{CE sat}$ @ I_C V	t_r max. ($t_{p.}^*$) μ s	P_{tot} @ 25°C W	Package	Mfrs. List No.
NPN							
6	400	900	3	4	0.75	70	SOT-93 (TO-218)
6	800	—	—	—	80	80	TO-3
7	200	400	1	5	—	60	TO-220 (SOT-78B)
8	400	700	1.5	5	0.7	80	TO-220 (SOT-78B)
8	400	700	1.5	5	0.7	80	TO-220 (SOT-78B)
8	400	700	1.5	5	0.7	80	TO-220 (SOT-78B)
8	450	1000	1.5	6	—	125	TO-247
8	700	1500	1	4.5	—	125	TO-247
8	700	1500	1	4.5	—	125	TO-247
9	450	850	1.5	6	—	125	TO-3
10	400	800	1.5	5	0.5	100	TO-3
10	400	1000	3.3	8	0.3*	100	TO-3
10	450	1000*	—	—	—	100	TO-3
12	400	700	1.5	8	0.7	100	TO-220 (SOT-78B)
12	400	700	1.5	8	0.7	100	TO-220 (SOT-78B)
12	800	1200	—	—	—	160	TO-3
15	70	100	—	—	—	90	TO-220 (SOT-78B)
15	400	800	5	15	0.4	175	TO-3
15	400	850	5	15	0.7	175	TO-3
15	450	1000	5	0.4	0.4	175	TO-3
15	450	850*	—	—	—	175	TO-3
15	450	1000*	—	—	—	175	TO-3
15	450	1000	2	2	0.8	150	TO-247
15	700	1200	1.5	6	0.7	150	SOT-93 (TO-218)
20	400	700	1.8	10	0.7	175	TO-3
30	400	850*	—	—	—	250	TO-3
30	450	1000*	—	—	—	250	TO-3
30	450	1000	2.8	10	0.1	200	SOT-93 (TO-218)
30	450	1000	1.5	16	0.8	250	TO-3
30	700	1200	1.5	12	0.8	250	TO-3
70	200	300*	—	—	—	300	TO-3
PNP							
1	375	375	1	1	—	2	TO-220 (SOT-78B)
1	375	375	1	1	—	2	TO-220 (SOT-78B)
8.0	400	450	2.0	4.0	0.5	80	TO-220AB
8.0	400	450	2.0	4.0	0.5	80	TO-220AB

Mfrs. List No.	Order Code	1+	25+	100+	500+	+
BD232.	359-282	142.00	130.00	88.00	42.00	—
BU208D	434-7055▲	264.00	188.00	157.00	129.00	—
BU406 (ST)	980-1782●	86.00	66.00	48.00	37.00	—
BU406. (MC)	434-7067	69.00	49.00	42.00	35.00	—
BU406 (MC)	929-4104●	75.00	54.00	45.00	40.00	—
BU508D.	434-7092‡	277.00	198.00	166.00	135.00	—
BU508D	945-3121●	302.00	216.00	181.00	157.00	—
BU426A.	434-7079	137.00	98.00	82.00	67.00	—
BU426A	929-4112●	150.00	106.00	89.00	77.00	—
BU508A.	434-7080‡	264.00	188.00	157.00	129.00	—
BU508A	945-3113●	288.00	205.00	172.00	149.00	—
BUF420A	980-1812●	603.00	481.00	421.00	363.00	—
BUL49D	162-905	80.00	61.00	48.00	40.00	—
BUP52.	359-531	1,580.00	1,214.00	953.00	727.00	—
BUS11A.	359-567	491.00	349.00	282.00	165.00	—
BUS13A.	359-580	943.00	659.00	516.00	296.00	—
BUS14.	359-609	1,615.00	1,128.00	882.00	515.00	—
BUS14A.	359-610	1,626.00	1,157.00	927.00	580.00	—
BUS48A.	260-526	768.00	529.00	379.00	222.00	—
BUV46.	359-671▲	88.00	68.00	53.00	44.00	—
BUV46A	251-926	118.00	90.00	78.00	60.00	—
BUV48A. (ST)	359-701▲‡	280.00	214.00	156.00	137.00	—
BUV48A. (MC)	434-7110	317.00	226.00	188.00	155.00	—
BUV48A (MC)	929-4139●	345.00	246.00	205.00	179.00	—
BUV48C.	359-713▲‡	390.00	299.00	218.00	191.00	—
BUW12A.	434-7122	198.00	142.00	118.00	96.00	—
BUW12A	929-4147●	216.00	155.00	128.00	112.00	—
BUX47	434-7134▲	206.00	147.00	123.00	100.00	—
BUX48	116-5899	304.00	217.00	181.00	149.00	—
BUX48A	116-5900	317.00	226.00	188.00	155.00	—
BUX80	116-5901	198.00	142.00	118.00	96.00	—
BUX81	118-2798●	596.00	428.00	340.00	201.00	—
BUX84.	434-7171	64.00	45.00	38.00	31.00	—
BUX84	929-4155●	69.00	49.00	41.00	36.00	—
BUX88.	359-919	1,803.00	1,328.00	1,069.00	740.00	—
BUX98A.	359-932▲‡	702.00	537.00	412.00	355.00	—
BUX98C.	359-944▲	1,928.00	1,349.00	964.00	703.00	—
BUY69A. (ST)	359-968▲‡	209.00	166.00	139.00	122.00	—
BUY69A (MC)	116-5903	227.00	162.00	136.00	111.00	—
BUX98C.	359-944▲	1,928.00	1,349.00	964.00	703.00	—
MJ13333 (ST)	116-5908	357.00	255.00	212.00	174.00	—
MJE5731A	352-6380▲	90.00	69.00	56.00	44.00	—
MJE5731AG	955-6290●	87.00	67.00	54.00	42.00	—
MJE5852	247-327▲	193.00	148.00	120.00	94.00	—
MJE5852G	955-5889●	188.00	143.00	117.00	91.00	—
MJE13003	352-6367▲	49.00	37.00	31.00	24.00	—
MJE13003G	955-6273●	47.00	36.00	30.00	23.00	—
MJE13005 (ON)	931-433▲	61.00	49.00	40.00	31.00	—
MJE13005G	955-7849●	62.00	48.00	39.00	30.00	—
MJE13005. (MC)	434-7328	64.00	45.00	38.00	31.00	—
MJE13005G (ON)	955-7849●	62.00	48.00	39.00	30.00	—
MJE13007 (ON)	931-445▲	64.00	49.00	40.00	31.00	—
MJE13007 (MC)	439-9109▲	92.00	52.00	46.00	34.00	—
MJE13007G (MC)	955-7857●	62.00	48.00	39.00	30.00	—
MJE13009 (ON)	931-457▲	103.00	81.00	66.00	51.00	—
MJE13009 (ST)	980-2444●	143.00	114.00	95.00	86.00	—
MJE13009G (ST)	955-7865●	102.00	78.00	64.00	50.00	—
TIP47. (ST)	360-077▲	104.00	55.00	42.00	28.00	—
TIP47. (MC)	434-7523	31.00	30.00	23.00	18.00	—
TIP50(ON)	931-512▲	61.00	44.00	34.00	27.00	—
TIP50G	116-6989●	61.00	44.00	34.00	27.00	—
TIP50 (ST)	360-107	76.00	58.00	46.00	38.00	—
TIP50. (MC)	434-7535	48.00	35.00	28.00	23.00	—

Mfrs. List No.	Order Code	1+	25+	100+	500+	+
TIPL760A.	360-156	122.00	94.00	78.00	55.00	—
TMJE13007	920-6957●	92.00	52.00	46.00	34.00	—
2N3439	101-5769●	68.00	52.00	41.00	34.00	—
2N3440(ST)	994-6624●	73.00	56.00	44.00	37.00	—
2N3440(MC)	920-7040●	160.00	101.00	76.00	46.00	—
2N3440MC(MC)	439-9201●	160.00	101.00	76.00	46.00	—
2N3584	120-8621●	1,527.00	952.00	686.00	419.00	—
2N6547 (ST)	994-6594●	286.00	228.00	190.00	172.00	—
2N6547 (MC)	116-5898	361.00	259.00	215.00	176.00	—
2SC2979	572-688	589.00	348.00	319.00	—	—

High-Gain Audio Power Output Transistors
With In-built Temperature Compensating Diodes

NPN

PNP

- Built-in temperature compensation diodes and one emitter resistor
- Real-time temperature compensation
- Symmetrical NPN/PNP pin-out design
- Designed for high quality audio output stages

Body H=28, W=17.8, D=4.5
Lead L=18

I_C (av) max. A	V_{CE0} max. V	V_{CBO} max. V	$V_{CE0(sat)}$ max. V	I_B max. A	h_{FE} min.	@ I_C A	Emitter resistor Ω	P_{tot} @ 25°C W	Mfrs. List No.
15	160	160	2.0	1	5000	10	0.22	150	SNK SAP15N SAP15P

Mfrs. List No.	Order Code	1+	10+	25+	100+	+
SAP15N	118-2829●	369.00	351.00	312.00	268.00	—
SAP15P	118-2830●	369.00	351.00	312.00	268.00	—

Audio Power Output Transistors



- High power complimentary pairs
- For high quality audio output stages, and general purpose push-pull amplifier configurations
- Silicon epitaxial fabrication
- 2SB817/2SD1047 incorporate ballast resistors for wider SOA, improved f_T vs. I_C , and extended h.f. response

I_C (av) max. A	V_{CE0} max. V	I_C pk max. A	V_{CBO} max. V	h_{FE} min.	@ I_C A	P_{tot} @ 25°C W	Package	Mfrs. List No.	
1	250	—	50	1	50	TO-220 (SOT-78B)	ON/MC	MJE15033	
1	250	—	50	1	50	TO-220 (SOT-78B)	ON	MJE15032G	
1	250	—	250	50	1	50	TO-220 (SOT-78B)	ON	MJE15032G
1	250	250	50	1	50	TO-220 (SOT-78B)	MC	TMJE15032	
8	150	16	150	20	4	50	TO-220 (SOT-78B)	ON	MJE15030
15	160	—	160	50	5	130	TO-3P	SNK	2SC3519
15	180	—	200	50	3	85	TO-3PF	SNK	2SC4388
15	200	200	60	7	200	TO-264	ON	—	
15	230	—	230	50	5	130	TO-3P	MC/ON	MJE15032
15	230	—	230	50	5	130	TO-3P	SNK	2SC3263
15	230	—	230	55	1	150	TO-264	MAG	2SC5200-0
15	260	260	75	5	200	TO-264	ON	MJL3281A	
15	260	260	75	5	200	TO-264	ON	MJL3281AG	
16	250	—	400	25	8	200	TO-264	ON	MJL21194
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