

### High Power Bipolar Transistors D Vce to 150V - continued

#### General Purpose - continued

Mfrs. List No.	Order Code	Price Each				
		1+	25+	100+	250+	+
BD180G	955-7067●	44.00	34.00	27.00	21.00	--
BD237(ON)	931-093▲	46.00	35.00	28.00	22.00	--
BD237G(ON)	955-7571●	44.00	34.00	27.00	21.00	--
BD237.(ST)	360-650▲‡	65.00	50.00	37.00	28.00	--
BD238(ON)	931-100▲	46.00	35.00	28.00	22.00	--
BD238G(ON)	955-7580●	44.00	34.00	27.00	21.00	--
BD238.(ST)	360-661▲‡	50.00	39.00	29.00	22.00	--
BD238(ST)	980-1537●	38.00	29.00	22.00	16.00	--
BD249C (ON)	247-108▲	241.00	193.00	156.00	134.00	--
BD249CG (ON)	955-5838●	234.00	187.00	152.00	130.00	--
BD249C. (MC)	434-6981	198.00	142.00	118.00	96.00	--
BD249C (MC)	NEW 929-4031●	216.00	155.00	128.00	112.00	--
BD250C.	434-7640	238.00	170.00	142.00	116.00	--
BD250C	NEW 929-4414●	259.00	186.00	155.00	133.00	--
BD433	995-6298●	37.00	28.00	21.00	16.00	--
BD434	995-6301●	37.00	28.00	21.00	16.00	--
BD435	995-6310●	37.00	28.00	21.00	16.00	--
BD436	995-6328●	37.00	28.00	21.00	16.00	--
BD437(ON)	931-135▲	46.00	35.00	28.00	22.00	--
BD437G(ON)	NEW 955-7610●	44.00	34.00	27.00	21.00	--
BD437.(ST)	360-790▲‡	44.00	33.00	25.00	19.00	--
BD438(ON)	931-147▲	46.00	35.00	28.00	22.00	--
BD438G(ON)	NEW 955-7628●	44.00	34.00	27.00	21.00	--
BD438(ST)	101-5772●	44.00	33.00	25.00	19.00	--
BDX36.	360-909	196.00	134.00	104.00	50.00	--
BFX34	994-6632●	141.00	108.00	79.00	61.00	--
BUP40.	361-033	180.00	119.00	74.00	51.00	--
BUT90.	361-800	1,706.00	1,149.00	730.00	469.00	--
BUT90.	361-800	1,706.00	1,149.00	730.00	469.00	--
BUV20.	361-811▲	526.00	419.00	346.00	306.00	--
BUW48.	523-045	1,028.00	694.00	481.00	264.00	--
BUW49.	523-057	961.00	660.00	476.00	264.00	--
BUX98A	980-1855●	581.00	463.00	382.00	338.00	--
BUV48C	980-1847●	318.00	254.00	212.00	192.00	--
MJ802 (ST)	994-6578●	186.00	148.00	124.00	112.00	--
MJ802 (MC)	434-7316▲	212.00	151.00	126.00	104.00	--
MJ2955. (ST)	251-938▲‡	97.00	74.00	58.00	49.00	--
MJ2955 (MC)	116-5912	68.00	67.00	52.00	39.00	--
MJ14003	233-2012▲	937.00	735.00	668.00	--	--
MJ15003 (ON)	361-872▲	221.00	169.00	134.00	114.00	--
MJ15003G (ON)	955-6460●	215.00	164.00	131.00	110.00	--
MJ15003 (MC)	116-5909	212.00	151.00	126.00	104.00	--
MJ15004 (ON)	361-884▲	214.00	164.00	130.00	110.00	--
MJ15004G (ON)	955-6478●	208.00	159.00	126.00	100.00	--
MJ15004 (MC)	116-5921	220.00	157.00	130.00	107.00	--
MJ15004G (ON)	955-6478●	208.00	159.00	126.00	100.00	--
MJ15015	361-896▲	148.00	113.00	90.00	71.00	--
MJ15015G	955-6486●	143.00	110.00	87.00	69.00	--
MJ15016	737-720▲	159.00	122.00	96.00	77.00	--
MJ15016G	955-7130●	154.00	118.00	94.00	74.00	--
MJ15022 (ON)	931-354▲	200.00	153.00	129.00	112.00	--
MJ15022G (ON)	955-7784●	194.00	148.00	118.00	94.00	--
MJ15022 (MC)	434-7286▲	462.00	330.00	276.00	225.00	--
MJ15023 (ON)	931-366▲	253.00	193.00	154.00	122.00	--
MJ15023 (MC)	116-5922	449.00	320.00	267.00	219.00	--
MJ15023G (ON)	955-7792●	245.00	188.00	149.00	118.00	--
MJ15024 (ON)	548-406▲	238.00	182.00	145.00	122.00	--
MJ15024G (ON)	955-6729●	231.00	177.00	141.00	112.00	--
MJ15024 (MC)	116-5910	475.00	340.00	282.00	231.00	--
MJ15025 (ON)	548-418▲	219.00	167.00	133.00	119.00	--
MJ15025G (ON)	955-6737●	212.00	162.00	129.00	109.00	--
MJ15025 (MC)	116-5923	488.00	349.00	291.00	238.00	--
MJ4502 (MC)	434-7780▲	233.00	167.00	139.00	113.00	--
MJE340(ON)	931-410▲	38.00	30.00	24.00	19.00	--
MJE340G(ON)	955-7822●	38.00	29.00	24.00	18.00	--
MJE340.(ST)	360-016▲‡	71.00	55.00	43.00	36.00	--
MJE350(ON)	931-421▲	38.00	30.00	24.00	19.00	--
MJE350G(ON)	955-7830●	38.00	29.00	24.00	18.00	--
MJE350.(ST)	360-028▲‡	76.00	58.00	46.00	38.00	--
MJE4343	233-0970▲	220.00	179.00	156.00	133.00	--
MJE4353	300-4910▲	220.00	168.00	134.00	106.00	--
MJE4353G	955-6028●	214.00	164.00	130.00	103.00	--
PNP3055.	309-2446	222.00	182.00	108.00	87.00	--
TIP33A	121-6257	145.00	125.00	117.00	104.00	--
TIP34A	361-252	124.00	90.00	78.00	65.00	--
TIP35C. (BNS)	361-914	150.00	104.00	78.00	--	--
TIP35C. (MC)	434-7500	114.00	81.00	68.00	55.00	--
TIP35C (MC)	929-4350●	124.00	88.00	74.00	65.00	--
TIP36C (BNS)	121-6261	210.00	145.00	98.00	88.00	--
TIP36C. (MC)	434-7950	119.00	85.00	71.00	59.00	--
TIP36C (MC)	929-4643●	129.00	92.00	77.00	67.00	--
TIP2955 (BNS)	121-6254	203.00	168.00	143.00	120.00	--
TIP2955. (MC)	434-7924	64.00	63.00	53.00	42.00	--
TIP3055 (BNS)	121-6255	182.00	148.00	140.00	98.00	--
TIP3055. (MC)	434-7470	54.00	54.00	48.00	36.00	--
TIP3055 (MC)	929-4325●	85.00	63.00	52.00	45.00	--

Mfrs. List No.	Order Code	Price Each				
		1+	25+	100+	250+	+
2N3055. (ST)	361-963▲‡	121.00	93.00	80.00	61.00	--
2N3055 (ST)	980-1308●	95.00	73.00	53.00	41.00	--
2N3055 (MC)	116-5889	50.00	48.00	35.00	29.00	--
2N3055H. (SEM)	361-975	176.00	146.00	130.00	109.00	--
2N3055H (MC)	116-5890	111.00	80.00	66.00	54.00	--
2N3442	116-5891	101.00	72.00	60.00	49.00	--
2N3716.	361-392	344.00	204.00	145.00	92.00	--
2N3771	994-6608●	154.00	122.00	96.00	80.00	--
2N3772. (ST)	361-999▲‡	226.00	180.00	150.00	136.00	--
2N3772 (MC)	116-5892	198.00	142.00	118.00	96.00	--
2N3773 (ON)	638-067▲	203.00	156.00	124.00	104.00	--
2N3773G (ON)	955-6745●	198.00	151.00	120.00	95.00	--
2N3773 (MC)	116-5893	206.00	147.00	123.00	100.00	--
2N4920.	361-460▲	60.00	34.00	29.00	22.00	--
2N4920G	955-6435●	60.00	34.00	29.00	22.00	--
2N3773G	955-6745●	198.00	151.00	120.00	95.00	--
2N4923.	361-495▲	27.00	23.00	19.00	--	--
2N4923G	955-6443●	27.00	23.00	19.00	--	--
2N5038	116-5894	198.00	142.00	118.00	96.00	--
2N5192	980-1324●	70.00	54.00	42.00	35.00	--
2N5195.	361-550▲	53.00	41.00	30.00	23.00	--
2N5195G	955-6451●	52.00	40.00	30.00	22.00	--
2N5880	434-7560▲	154.00	110.00	92.00	74.00	--
2N5882	434-6907▲	106.00	76.00	63.00	52.00	--
2N5883	118-2790●	741.00	454.00	334.00	201.00	--
2N5884 (ON)	334-3303▲	220.00	168.00	134.00	106.00	--
2N5884G (ON)	955-6044●	214.00	164.00	130.00	103.00	--
2N5884 (MC)	434-7572▲	198.00	142.00	118.00	96.00	--
2N5886(ON)	334-3558▲	200.00	153.00	122.00	103.00	--
2N5886G(ON)	955-6087●	194.00	149.00	118.00	94.00	--
2N5886 (MC)	434-6919▲	196.00	140.00	117.00	95.00	--
2N6254.	362-104	802.00	398.00	302.00	156.00	--
2N6328	118-2792●	778.00	477.00	351.00	202.00	--
2N6331	118-2793●	834.00	501.00	359.00	203.00	--
2N6438 (ON)	242-0272	994.00	740.00	599.00	510.00	--
2N6438 (MC)	434-7638▲	233.00	167.00	139.00	113.00	--
2N6609	116-5913	209.00	150.00	124.00	102.00	--
2SA1209.	410-3841	54.00	53.00	48.00	38.00	--
2SC2911.	410-3853	60.00	57.00	51.00	40.00	--

### High Voltage Power Transistors D Vce to 150V to 800V

#### Hybrid Emitter Switched Bipolar Transistor (ESBT)



TO247-4L HV

- Low equivalent on resistance
- Very fast-switching, up to 150KHz
- Squared Reverse Biased Safe Operating Area (RBSOA) is guaranteed, improving safe-switching performance.
- Lower turn off and conduction losses compared to IGBTs at switching frequencies in the range of 30-150KHz
- Low on-voltage drop: less than 1V at  $I_{CM}$



Using a hybrid structure, incorporating high voltage Bipolar and low voltage MOSFET technologies, this transistor is aimed to provide the best performance in ESBT topology.

$V_{CS(ON)}$ (V)	$I_C$ (A)	$R_{CS(ON)}$ $\Omega$	$V_{BS(OS)}$ (V)	$V_{SB(OS)}$ (V)	$V_{GS}$ (V)	Mfrs. List No.
1700	3	0.55	30	9	±20	STC03DE170HV

414200

Mfrs. List No.	Order Code	Price Each		
		1+	25+	100+
STC03DE170HV	974-7850●	464.00	355.00	244.00

#### High Voltage Switching

$I_C$ max. A	$V_{CEO}$ max. V	$V_{CES}$ max. ( $V_{CBO}$ ) V	$V_{CE sat}$ @ V	$I_C$ A	$t_f$ max. (typ.)* $\mu$ s	$P_{tot}$ @ 25°C W	Package	Mfr.	Mfrs. List No.
<b>NPN</b>									
0.25	300	500*	—	—	—	11	TO-126	—	BD232.
1	250	300	0.5	0.05	—	10	TO-39	ST/MC	2N3440
1	250	350*	1	1	—	40	TO-220 (SOT-78B)	MC/MC	TIP47
1	300	450*	0.5	0.05	—	10	TO-39	ST	2N3439
1	400	500*	1	1	—	40	TO-220 (SOT-78B)	MC/ST	TIP50
1	400	500*	1	1	—	40	TO-220AB	ON	TIP50G
1.5	400	700	1	1	0.7	40	TO-126	ON	MJE13003
1.5	400	700	1	1	0.7	40	TO-126	ON	MJE13003G
1.5	400	10*	1	1	0.7	40	TO-126	ON	MJE13003G
2	250	375*	—						