

Transistors

Transistors are fundamental to modern power electronics, providing a critical control source for amplifying, generating, and controlling electronic signals. MCC’s robust portfolio of transistors ensures exceptional performance and reliability in a broad range of applications. Choose from diverse amplifying and switching solutions in a range of packages, configurations, and polarities, including AEC-Q101 qualified components.

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Automotive Products

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
MMS8050HE3-H	SOT-23	NPN	0.300	25	0.50	200-350	1	50	0.60	500	50	150
MMS8050HE3-L	SOT-23	NPN	0.300	25	0.50	120-200	1	50	0.60	500	50	150
MMS9013HE3-H	SOT-23	NPN	0.300	25	0.50	200-350	1	50	0.60	500	50	150
MMS9013HE3-L	SOT-23	NPN	0.300	25	0.50	120-200	1	50	0.60	500	50	150
MMSS8050HE3-H	SOT-23	NPN	0.300	25	1.50	200-350	1	100	0.50	800	80	100
MMSS8050HE3-L	SOT-23	NPN	0.300	25	1.50	120-200	1	100	0.50	800	80	100
BC848AHE3	SOT-23	NPN	0.225	30	0.10	110-220	5	2	0.50	100	5	100
BC848BHE3	SOT-23	NPN	0.225	30	0.10	200-450	5	2	0.50	100	5	100
BC848CHE3	SOT-23	NPN	0.225	30	0.10	420-800	5	2	0.50	100	5	100
BC848AWEH3	SOT-323	NPN	0.200	30	0.10	110-220	5	2	0.50	100	5	150
BC848BWEH3	SOT-323	NPN	0.200	30	0.10	200-450	5	2	0.50	100	5	150
BC848CWEH3	SOT-323	NPN	0.200	30	0.10	420-800	5	2	0.50	100	5	150
DMMT3904HE3	SOT-363	NPN*2	0.200	40	0.20	100-300	1	10	0.30	50	5	250
FMMT491BHE3	SOT-23	NPN	0.300	40	1.00	300	5	1	0.20	100	1	150
MMBT2222AHE3	SOT-23	NPN	0.350	40	0.60	75	10	10	0.30	150	15	300
MMBT3904HE3	SOT-23	NPN	0.350	40	0.20	100-300	1	10	0.20	10	1	300
MMBT4401HE3	SOT-23	NPN	0.350	40	0.60	80	1	10	0.40	150	15	250
MMDT2222AHE3	SOT-363	NPN*2	0.200	40	0.60	100-300	10	150	1.00	500	50	250
MMDT3904HE3	SOT-363	NPN*2	0.200	40	0.20	100-300	1	10	0.30	50	5	300
MMST2222AHE3	SOT-323	NPN	0.200	40	0.60	100-300	10	150	0.50	500	50	300
MMST3904HE3	SOT-323	NPN	0.200	40	0.20	100-300	1	10	0.30	50	5	250
MMST4401HE3	SOT-323	NPN	0.200	40	0.60	100-300	1	150	0.40	150	15	150
BC817-16HE3	SOT-23	NPN	0.300	45	0.50	100-250	1	100	0.70	500	50	100
BC817-25HE3	SOT-23	NPN	0.300	45	0.50	160-400	1	100	0.70	500	50	100
BC817-40HE3	SOT-23	NPN	0.300	45	0.50	250-600	1	100	0.70	500	50	100
BC817-16WHE3	SOT-323	NPN	0.200	45	0.50	100-250	1	100	0.70	500	50	100
BC817-25WHE3	SOT-323	NPN	0.200	45	0.50	160-400	1	100	0.70	500	50	100
BC817-40WHE3	SOT-323	NPN	0.200	45	0.50	250-600	1	100	0.70	500	50	100
BC847AHE3	SOT-23	NPN	0.225	45	0.10	110-220	5	2	0.50	100	5	100
BC847BHE3	SOT-23	NPN	0.225	45	0.10	200-450	5	2	0.50	100	5	100
BC847CHE3	SOT-23	NPN	0.225	45	0.10	420-800	5	2	0.50	100	5	100
BC847AWEH3	SOT-323	NPN	0.200	45	0.10	110-220	5	2	0.50	100	5	150
BC847BWEH3	SOT-323	NPN	0.200	45	0.10	200-450	5	2	0.50	100	5	150
BC847CWEH3	SOT-323	NPN	0.200	45	0.10	420-800	5	2	0.50	100	5	150
BC847BSHE3	SOT-363	NPN*2	0.200	45	0.10	200-450	5	2	0.65	100	5	150
MMS9014HE3-H	SOT-23	NPN	0.400	45	0.10	450-1000	5	1	0.30	100	5	150
MMS9014HE3-L	SOT-23	NPN	0.400	45	0.10	200-450	5	1	0.30	100	5	150
BC846AHE3	SOT-23	NPN	0.225	65	0.10	110-220	5	2	0.50	100	5	100
BC846BHE3	SOT-23	NPN	0.225	65	0.10	200-450	5	2	0.50	100	5	100
BC846AWEH3	SOT-323	NPN	0.200	65	0.10	110-220	5	2	0.50	100	5	150
BC846BWEH3	SOT-323	NPN	0.200	65	0.10	200-450	5	2	0.50	100	5	150
BC846BSHE3	SOT-363	NPN*2	0.200	65	0.10	200-450	5	2	0.10	10	0.5	100
2SD1782HE3-R	SOT-23	NPN	0.200	80	0.50	180-390	3	100	0.50	500	50	180
MMBTA06HE3	SOT-23	NPN	0.300	80	0.50	100	1	10	0.25	100	10	100

Automotive Products

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
MMSTA06HE3	SOT-323	NPN	0.200	80	0.50	100~400	1	10	0.25	100	10	100
MMBT5551HE3	SOT-23	NPN	0.300	160	0.60	100-300	5	10	0.20	50	5	100
MMDT5551HE3	SOT-363	NPN*2	0.200	160	0.60	100-300	5	10	0.15	10	1	250
MMST5551HE3	SOT-323	NPN	0.200	160	0.60	30	5	50	0.20	50	5	100
MMBTA42HE3	SOT-23	NPN	0.350	300	0.50	40	10	10	0.50	20	2	50
MMSTA42HE3	SOT-323	NPN	0.200	300	0.20	40	10	10	0.50	20	2	50
MMS8550HE3-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS8550HE3-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMS9012HE3-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS9012HE3-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMSS8550HE3-H	SOT-23	PNP	0.625	-25	-1.50	200-350	-1	-100	-0.50	-800	-80	100
MMSS8550HE3-L	SOT-23	PNP	0.625	-25	-1.50	120-200	-1	-100	-0.50	-800	-80	100
BC858AWHE3	SOT-323	PNP	0.150	-30	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC858BWHE3	SOT-323	PNP	0.150	-30	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC858AHE3	SOT-23	PNP	0.300	-30	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC858BHE3	SOT-23	PNP	0.300	-30	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC858CHE3	SOT-23	PNP	0.300	-30	-0.10	420-800	-5	-2	-0.65	-100	-1	100
FMMT591BHE3	SOT-23	PNP	0.300	-40	-1.00	300	-5	-1	-0.20	-100	-1	150
MMBT3906HE3	SOT-23	PNP	0.300	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	250
MMBT4403HE3	SOT-23	PNP	0.350	-40	-0.60	100	-1	-10	-0.40	-150	-15	200
MMDT3906HE3	SOT-363	PNP*2	0.200	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	250
MMST3906HE3	SOT-323	PNP	0.200	-40	-0.20	100-300	-10	-1	-0.30	-50	-5	300
MMST4403HE3	SOT-323	PNP	0.200	-40	-0.60	100-300	-2	-150	-0.40	-150	-15	200
BC807-16HE3	SOT-23	PNP	0.300	-45	-0.50	100-250	-1	-100	-0.70	500	50	100
BC807-25HE3	SOT-23	PNP	0.300	-45	-0.50	160-400	-1	-100	-0.70	500	50	100
BC807-40HE3	SOT-23	PNP	0.300	-45	-0.50	250-600	-1	-100	-0.70	500	50	100
BC807-16WHE3	SOT-323	PNP	0.200	-45	-0.50	100-250	-1	-100	-0.70	-500	-50	100
BC807-25WHE3	SOT-323	PNP	0.200	-45	-0.50	160-400	-1	-100	-0.70	-500	-50	100
BC807-40WHE3	SOT-323	PNP	0.200	-45	-0.50	250-600	-1	-100	-0.70	-500	-50	100
BC857AWHE3	SOT-323	PNP	0.150	-45	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC857BWHE3	SOT-323	PNP	0.150	-45	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC857BSHE3	SOT-363	PNP*2	0.200	-45	-0.20	200-475	-5	-2	-0.65	-100	-5	100
BC857AHE3	SOT-23	PNP	0.310	-45	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC857BHE3	SOT-23	PNP	0.310	-45	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200
MMS9015HE3-H	SOT-23	PNP	0.200	-45	-0.10	450-1000	-5	-1	-0.30	-100	-10	150
MMS9015HE3-L	SOT-23	PNP	0.200	-45	-0.10	200-450	-5	-1	-0.30	-100	-10	150
FMMT591HE3	SOT-23	PNP	0.300	-60	-1.00	100-300	-5	-500	-0.60	-1	-100	150
MMBT2907AHE3	SOT-23	PNP	0.350	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMDT2907AHE3	SOT-363	PNP*2	0.200	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMST2907AHE3	SOT-323	PNP	0.200	-60	-0.60	100	-10	-1	-1.60	-500	-50	200
BC856AWHE3	SOT-323	PNP	0.150	-65	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC856BWHE3	SOT-323	PNP	0.150	-65	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC856AHE3	SOT-23	PNP	0.310	-65	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC856BHE3	SOT-23	PNP	0.310	-65	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200

Automotive Products

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
MMBTA56HE3	SOT-23	PNP	0.300	-80	-0.50	100	-1	-10	-0.25	-100	-10	100
MMSTA56HE3	SOT-323	PNP	0.200	-80	-0.50	100	-1	-10	-0.25	-100	-10	100
MMBT5401HE3	SOT-23	PNP	0.300	-150	-0.60	100-300	-5	-10	-0.50	-50	-5	100
MMDT5401HE3	SOT-363	PNP*2	0.200	-150	-0.60	100-300	-5	-10	-0.50	-50	-5	250
MMST5401HE3	SOT-323	PNP	0.200	-150	-0.60	60-300	-5	-10	-0.50	-50	-5	100
MMBTA92HE3	SOT-23	PNP	0.300	-300	-0.30	100-200	-10	-10	-0.50	-20	-2	50
MMSTA92HE3	SOT-323	PNP	0.200	-300	-0.10	40	-10	-10	-0.40	-20	-2	50
MMDT2227HE3	SOT-363	NPN+PNP	0.200	40/-60	0.6/-0.6	35/75	10/-10	0.1/-0.1	0.3/-0.4	150/-150	15/-15	250
MMDT3946HE3	SOT-363	NPN+PNP	0.200	40/-40	0.2/-0.2	100-300	1/-1	10/-10	0.3/-0.4	50/-50	5/-5	300/250
BC847PNHE3	SOT-363	NPN+PNP	0.200	45/-45	0.1/-0.1	200-450/220-475	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
BC846BPNHE3	SOT-363	NPN+PNP	0.200	65/-65	0.1/-0.1	200-450	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
MMDT5451HE3	SOT-363	NPN+PNP	0.200	160/-150	0.2/-0.2	100-300	5/-5	10/-10	0.2/-0.5	50/-50	5/-5	100-300

Automotive Products

Medium Power Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CE0} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
BCP56-16HE3	SOT-223	NPN	1.5	80	1	100-250	2	150	0.5	500	50	100
BCX56-16HE3	SOT-89	NPN	0.5	80	1	100-250	2	150	0.5	500	50	130
MJD31CHE3	DPAK	NPN	1.25	100	3	10-75	4	3000	1.2	3000	375	3
MJD41CHE3	DPAK	NPN	1.25	100	6	15-155	4	3	1.5	6	0.6	3
PZT5551HE3	SOT-223	NPN	1	160	0.6	80	5	1	0.15	10	1	100
PZT2907AHE3	SOT-223	PNP	1	-60	-0.6	100-300	-10	-150	-0.4	-150	-15	200
BCP53-16HE3	SOT-223	PNP	1.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	100
BCX53-16HE3	SOT-89	PNP	0.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	50
MJD32CHE3	DPAK	PNP	1.25	-100	-3	10-75	-0.375	-3000	-1.2	-3000	-375	3
MJD42CHE3	DPAK	PNP	1.5	-100	-6	15-75	-4	-3000	-1.5	-6000	-600	3

Automotive Products

Pre-Biased Transistors

Part Number	Package	Polarity	Power Dissipation	Output Current	Supply Voltage	DC Current Gain	Output Voltage	Input Resistance		Transition frequency
			P _D (mW)	I _O (mA)	V _{CC} (V)	G _i	V _O (V)	R _i (KΩ)	R _z (KΩ)	f _T (MHZ)
UMH10NHE3	SOT-363	NPN*2	150	100	50	80	0.3	2.2	47	250
UMH11NHE3	SOT-363	NPN*2	150	100	50	30	0.3	10	10	250
UMH13NHE3	SOT-363	NPN*2	150	100	50	80	0.3	4.7	47	250
UMH1NHE3	SOT-363	NPN*2	150	100	50	56	0.3	22	22	250
UMH2NHE3	SOT-363	NPN*2	150	100	50	68	0.3	47	47	200
UMH9NHE3	SOT-363	NPN*2	150	100	50	68	0.3	10	47	250
DTC114ECAHE3	SOT-23	NPN	200	100	50	30	0.3	10	10	250
DTC114EUAHE3	SOT-323	NPN	200	100	50	33	0.3	10	10	250
DTC114YCAHE3	SOT-23	NPN	200	100	50	68	0.3	10	47	250
DTC114YUAHE3	SOT-323	NPN	200	100	50	68	0.3	10	47	250
DTC123JCAHE3	SOT-23	NPN	200	100	50	80	0.3	2.2	47	200
DTC123JUAHE3	SOT-323	NPN	200	100	50	80	0.3	2.2	47	200
DTC124ECAHE3	SOT-23	NPN	200	100	50	56	0.3	22	22	250
DTC124EUAHE3	SOT-323	NPN	200	100	50	56	0.3	22	22	250
DTC143ECAHE3	SOT-23	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143EUAHE3	SOT-323	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143ZCAHE3	SOT-23	NPN	200	100	50	80	0.3	4.7	47	250
DTC143ZUAHE3	SOT-323	NPN	200	100	50	80	0.3	4.7	47	250
DTC144ECAHE3	SOT-23	NPN	200	100	50	68	0.3	47	47	250
DTC144EUAHE3	SOT-323	NPN	200	100	50	68	0.3	47	47	250
DTA114ECAHE3	SOT-23	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114EUAHE3	SOT-323	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114YCAHE3	SOT-23	PNP	200	-100	-50	68	-0.3	10	47	250
DTA114YUAHE3	SOT-323	PNP	200	-100	-50	68	-0.3	10	47	250
DTA123JCAHE3	SOT-23	PNP	200	-100	-50	80	-0.3	2.2	47	200
DTA123JUAHE3	SOT-323	PNP	200	-100	-50	80	-0.3	2.2	47	200
DTA124ECAHE3	SOT-23	PNP	200	-100	-50	56	-0.3	22	22	200
DTA124EUAHE3	SOT-323	PNP	200	-100	-50	56	-0.3	22	22	200
DTA143ECAHE3	SOT-23	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143EUAHE3	SOT-323	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143ZCAHE3	SOT-23	PNP	200	-100	-50	80	-0.3	4.7	47	250
DTA143ZUAHE3	SOT-323	PNP	200	-100	-50	80	-0.3	4.7	47	250
DTA144ECAHE3	SOT-23	PNP	200	-100	-50	68	-0.3	47	47	250
DTA144EUAHE3	SOT-323	PNP	200	-100	-50	68	-0.3	47	47	250
UMB9NHE3	SOT-363	PNP*2	150	-100	-50	68	-0.3	10	47	200
UMD10NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	80	0.3/-0.3	2.2	47	200
UMD12NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	47	47	250
UMD15NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	20/30	0.3/-0.3	4.7	4.7	250
UMD2NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	22	250
UMD2NHE3-TPQ2	SOT-363	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	22	250
UMD22NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	4.7	47	250
UMD3NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	10	10	250
UMD9NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	68	0.3/-0.3	10	47	250

Small Signal Bipolar Transistors

Small Signal Bipolar Transistors

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			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _s (mA)	f _T (MHz)
MMBTH10	SOT-23	NPN	0.225	25	0.05	60	10	4	0.50	4	0.4	650
MMS8050-H	SOT-23	NPN	0.300	25	0.50	200-350	1	50	0.60	500	50	150
MMS8050A-H	SOT-23	NPN	0.300	25	0.50	200-350	1	50	0.60	500	50	150
MMS8050A-L	SOT-23	NPN	0.300	25	0.50	120-200	1	50	0.60	500	50	150
MMS9013-H	SOT-23	NPN	0.300	25	0.50	200-350	1	50	0.60	500	50	150
MMS9013-L	SOT-23	NPN	0.300	25	0.50	120-200	1	50	0.60	500	50	150
MMSS8050-H	SOT-23	NPN	0.300	25	1.50	200-350	1	100	0.50	800	80	100
MMSS8050-L	SOT-23	NPN	0.300	25	1.50	120-200	1	100	0.50	800	80	100
MMSS8050W-H	SOT-323	NPN	0.200	25	1.50	200-350	1	100	0.50	800	80	100
MMSS8050W-L	SOT-323	NPN	0.200	25	1.50	120-200	1	100	0.50	800	80	100
MS8050-H	SOT-23	NPN	0.300	25	0.80	200-300	1	5	0.50	800	80	150
MS8050-L	SOT-23	NPN	0.300	25	0.80	80-200	1	5	0.50	800	80	150
2SC2859-Y	SOT-23	NPN	0.150	30	0.50	120-240	1	100	0.25	100	10	300
BC848A	SOT-23	NPN	0.200	30	0.10	110-220	5	2	0.50	100	5	100
BC848B	SOT-23	NPN	0.200	30	0.10	200-450	5	2	0.50	100	5	100
BC848C	SOT-23	NPN	0.200	30	0.10	420-800	5	2	0.50	100	5	100
BC849B	SOT-23	NPN	0.200	30	0.10	200-450	5	2	0.50	100	5	100
BC849C	SOT-23	NPN	0.200	30	0.10	420-800	5	2	0.50	100	5	100
BC848AL3	DFN1006-3	NPN	0.150	30	0.10	110-220	5	2	0.60	100	5	100
BC848BL3	DFN1006-3	NPN	0.150	30	0.10	200-450	5	2	0.60	100	5	100
BC848CL3	DFN1006-3	NPN	0.150	30	0.10	420-800	5	2	0.60	100	5	100
BC848AM3	SOT-723	NPN	0.265	30	0.10	110-220	5	2	0.30	10	0.5	100
BC848BM3	SOT-723	NPN	0.265	30	0.10	200-450	5	2	0.30	10	0.5	100
BC848CM3	SOT-723	NPN	0.265	30	0.10	420-800	5	2	0.30	10	0.5	100
BC848AW	SOT-323	NPN	0.200	30	0.10	110-220	5	2	0.25	10	0.5	100
BC848BW	SOT-323	NPN	0.200	30	0.10	200-450	5	2	0.25	10	0.5	100
BC848CW	SOT-323	NPN	0.200	30	0.10	420-800	5	2	0.25	10	0.5	100
FMMT4230	SOT-23	NPN	0.300	30	2.00	350	2	100	0.70	100	1	100
MMBTA13	SOT-23	NPN	0.225	30	0.30	5000	5	10	1.50	100	0.1	125
MMBTA14	SOT-23	NPN	0.225	30	0.30	10000	5	10	1.50	100	0.1	125
2SC2411-R	SOT-23	NPN	0.200	32	0.50	180-390	3	100	0.40	500	50	250
2SC4097-P	SOT-323	NPN	0.200	32	0.50	82-180	3	10	0.40	100	10	250
2SC4097-Q	SOT-323	NPN	0.200	32	0.50	120-270	3	10	0.40	100	10	250
2SC4097-R	SOT-323	NPN	0.200	32	0.50	180-390	3	10	0.40	100	10	250
DMMT3904	SOT-363	NPN*2	0.200	40	0.20	100-300	1	10	0.30	50	5	300
FMMT4240	SOT-23	NPN	0.300	40	2.00	350	2	100	0.70	100	1	100
FMMT491B	SOT-23	NPN	0.300	40	1.00	300	5	1	0.20	100	1	150
MMBT2222A	SOT-23	NPN	0.350	40	0.60	75	10	10	0.30	150	15	300
MMBT2222AT	SOT-523	NPN	0.150	40	0.60	100-300	10	150	1.00	500	50	300
MMBT2222ATS	SOT-523	NPN	0.150	40	0.60	100-300	10	150	1.00	500	50	300
MMBT3904	SOT-23	NPN	0.350	40	0.20	100-300	1	10	0.20	10	1	300
MMBT3904L3	DFN1006-3	NPN	0.150	40	0.20	100-300	1	10	0.30	50	5	300
MMBT3904T	SOT-523	NPN	0.150	40	0.20	100-300	1	10	0.30	50	5	300
MMBT4401	SOT-23	NPN	0.350	40	0.60	80	1	10	0.40	150	15	250

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Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _s (mA)	f _T (MHz)
MMDT2222A	SOT-363	NPN*2	0.150	40	0.60	100-300	10	150	1.00	500	50	300
MMDT3904	SOT-363	NPN*2	0.200	40	0.20	100-300	1	10	0.30	50	5	300
MMDT3904S	SOT-363S	NPN*2	0.200	40	0.20	100~300	1	10	0.20	10	1	250
MMDT3904S-TPQ2	SOT-363S	NPN*2	0.200	40	0.20	100~300	1	10	0.20	10	1	250
MMDT3904-TPQ2	SOT-363	NPN*2	0.200	40	0.20	100-300	1	10	0.30	50	5	300
MMDT3904V	SOT-563	NPN*2	0.200	40	0.20	30	1	100	0.30	50	5	300
MMDT4401	SOT-363	NPN*2	0.200	40	0.60	40	2	500	0.75	500	50	250
MMST2222A	SOT-323	NPN	0.200	40	0.60	100-300	10	150	0.60	500	50	300
MMST3904	SOT-323	NPN	0.200	40	0.20	100-300	1	10	0.30	50	5	300
MMST4401	SOT-323	NPN	0.200	40	0.60	100-300	2	500	0.40	150	15	250
BC817-16	SOT-23	NPN	0.300	45	0.50	100-250	1	100	0.70	500	50	100
BC817-25	SOT-23	NPN	0.300	45	0.50	160-400	1	100	0.70	500	50	100
BC817-40	SOT-23	NPN	0.300	45	0.50	250-600	1	100	0.70	500	50	100
BC817-16W	SOT-323	NPN	0.200	45	0.50	100-250	1	100	0.70	500	50	100
BC817-25W	SOT-323	NPN	0.200	45	0.50	160-400	1	100	0.70	500	50	100
BC817-40W	SOT-323	NPN	0.200	45	0.50	250-600	1	100	0.70	500	50	100
BC817DS	SOT23-6L	NPN*2	0.300	45	0.50	160-400	1	100	0.70	500	50	100
BC817K-25	SOT-23	NPN	0.500	45	0.50	160-400	1	100	0.70	500	50	100
BC847A	SOT-23	NPN	0.200	45	0.10	110-220	5	2	0.50	100	5	100
BC847B	SOT-23	NPN	0.200	45	0.10	200-450	5	2	0.50	100	5	100
BC847C	SOT-23	NPN	0.200	45	0.10	420-800	5	2	0.50	100	5	100
BC847AL3	DFN1006-3	NPN	0.150	45	0.10	110-220	5	2	0.60	100	5	100
BC847BL3	DFN1006-3	NPN	0.150	45	0.10	200-450	5	2	0.60	100	5	100
BC847CL3	DFN1006-3	NPN	0.150	45	0.10	420-800	5	2	0.60	100	5	100
BC847AM3	SOT-723	NPN	0.265	45	0.10	110-220	5	2	0.30	10	0.5	100
BC847BM3	SOT-723	NPN	0.265	45	0.10	200-450	5	2	0.30	10	0.5	100
BC847CM3	SOT-723	NPN	0.265	45	0.10	420-800	5	2	0.30	10	0.5	100
BC847AW	SOT-323	NPN	0.200	45	0.10	110-220	5	2	0.25	10	0.5	100
BC847BW	SOT-323	NPN	0.200	45	0.10	200-450	5	2	0.25	10	0.5	100
BC847CW	SOT-323	NPN	0.200	45	0.10	420-800	5	2	0.25	10	0.5	100
BC847AT	SOT-523	NPN	0.150	45	0.10	110-220	5	2	0.60	100	5	100
BC847BT	SOT-523	NPN	0.150	45	0.10	200-450	5	2	0.60	100	5	100
BC847CT	SOT-523	NPN	0.150	45	0.10	420-800	5	2	0.60	100	5	100
BC847BS	SOT-363	NPN*2	0.300	45	0.10	200-450	5	2	0.60	100	5	200
BC847BS-TPQ2	SOT-363	NPN*2	0.300	45	0.10	200-450	5	2	0.60	100	5	100
BC847BV	SOT-563	NPN*2	0.150	45	0.10	200-450	5	2	0.30	100	5	100
BCW66F	SOT-23	NPN	0.200	45	0.80	100-250	1	100	0.30	100	10	100
BCW66G	SOT-23	NPN	0.200	45	0.80	110	1	10	0.30	100	10	100
BCW66H	SOT-23	NPN	0.330	45	0.80	180	1	10	0.30	100	10	100
BCX70J	SOT-23	NPN	0.250	45	0.20	250-460	5	2	0.35	10	0.25	100
MMS9014-H	SOT-23	NPN	0.400	45	0.10	450-1000	5	1	0.30	100	5	150
MMS9014-L	SOT-23	NPN	0.400	45	0.10	200-450	5	1	0.30	100	5	150
2SC1623-L5	SOT-23	NPN	0.200	50	0.10	135-270	6	1	0.30	100	10	250
2SC1623-L6	SOT-23	NPN	0.200	50	0.10	200-400	6	1	0.30	100	10	250

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Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _E (mA)	f _T (MHz)
2SC1623-L7	SOT-23	NPN	0.200	50	0.10	300-600	6	1	0.30	100	10	250
2SC2412-R	SOT-23	NPN	0.200	50	0.15	180-390	6	1	0.40	50	5	150
2SC2412-S	SOT-23	NPN	0.200	50	0.15	270-560	6	1	0.40	50	5	150
2SC2712-Y	SOT-23	NPN	0.150	50	0.15	120-240	6	2	0.10	100	10	80
2SC4081-A	SOT-323	NPN	0.200	50	0.15	120-270	6	1	0.40	50	5	180
2SC4081-B	SOT-323	NPN	0.200	50	0.15	180-390	6	1	0.40	50	5	180
2SC4617-R	SOT-523	NPN	0.150	50	0.15	180-390	6	1	0.40	50	5	180
KTC3875-GR	SOT-23	NPN	0.150	50	0.15	200-400	6	2	0.25	100	10	80
KTC3875-Y	SOT-23	NPN	0.150	50	0.15	120-240	6	2	0.25	100	10	80
MMBT1815-H	SOT-23	NPN	0.200	50	0.15	200-400	6	2	0.25	100	10	80
UMX1N	SOT-363	NPN*2	0.150	50	0.15	120-560	6	1	0.40	50	5	180
FMMT491	SOT-23	NPN	0.500	60	1.00	80	5	1000	0.50	1000	100	150
MMBT3820	SOT-23	NPN	0.300	60	1.00	200	5	1	0.12	100	1	150
MMBTA05	SOT-23	NPN	0.300	60	0.50	100	1	10	0.25	100	10	100
MMSTA05	SOT-323	NPN	0.200	60	0.50	100~400	1	10	0.25	100	10	100
BC846A	SOT-23	NPN	0.200	65	0.10	110-220	5	2	0.50	100	5	100
BC846B	SOT-23	NPN	0.200	65	0.10	200-450	5	2	0.50	100	5	100
BC846C	SOT-23	NPN	0.200	65	0.10	428-800	5	2	0.50	100	5	100
BC846AL3	DFN1006-3	NPN	0.150	65	0.10	110-220	5	2	0.60	100	5	100
BC846BL3	DFN1006-3	NPN	0.150	65	0.10	200-450	5	2	0.60	100	5	100
BC846AM3	SOT-723	NPN	0.265	65	0.10	110-220	5	2	0.30	10	0.5	100
BC846BM3	SOT-723	NPN	0.265	65	0.10	200-450	5	2	0.30	10	0.5	100
BC846AW	SOT-323	NPN	0.200	65	0.10	110-220	5	2	0.25	10	0.5	100
BC846BW	SOT-323	NPN	0.200	65	0.10	200-450	5	2	0.25	10	0.5	100
BC846BSS	SOT-363S	NPN*2	0.200	65	0.10	200-450	5	2	0.10	10	0.5	80
BC846BS	SOT-363	NPN*2	0.200	65	0.10	200-450	5	2	0.10	10	0.5	100
BC846S	SOT-363	NPN*2	0.200	65	0.10	110	5	2	0.10	10	0.5	80
BC846BS-TPQ2	SOT-363	NPN*2	0.200	65	0.10	200-450	5	2	0.10	10	0.5	100
BC846S-TPQ2	SOT-363	NPN*2	0.200	65	0.10	110	5	110	0.10	10	0.5	100
MMBTA06	SOT-23	NPN	0.300	80	0.50	100	1	10	0.25	100	10	100
MMBTA28	SOT-23	NPN	0.200	80	0.50	10000	5	10	1.50	100	0.1	125
MMBTA28L	SOT-23-3L	NPN	0.200	80	0.50	10000	5	10	1.20	10	0.01	125
MMSTA06	SOT-323	NPN	0.200	80	0.50	100~400	1	10	0.25	100	10	100
FMMT493	SOT-23	NPN	0.250	100	1.00	20	10	1000	0.30	500	50	150
MMBT5550	SOT-23	NPN	0.225	140	0.60	60	5	10	0.15	10	1	
FMMT495	SOT-23	NPN	0.300	150	1.00	140	5	200	0.30	500	50	140
MMBT5551	SOT-23	NPN	0.300	160	0.60	100-300	5	10	0.20	50	5	100
MMDT5551	SOT-363	NPN*2	0.200	160	0.20	100-300	5	10	0.15	10	1	300
MMST5551	SOT-323	NPN	0.200	160	0.20	30	5	50	0.20	50	5	300
SMBT5551	SOT23-6L	NPN*2	0.300	160	0.60	100-300	5	10	0.15	10	1	300
MMBTA43	SOT-23	NPN	0.225	200	0.50	25	10	1	0.50	20	2	50
MMBTA42	SOT-23	NPN	0.350	300	0.50	40	10	10	0.50	20	2	50
MMSTA42	SOT-323	NPN	0.200	300	0.20	40	10	10	0.50	20	2	50
MMBTA44	SOT-23	NPN	0.350	400	0.10	40	10	1	0.75	50	5	50

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Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _E (mA)	f _T (MHz)
MMS8550-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS8550-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMS8550A-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS8550A-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMS9012-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	100
MMS9012-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	100
MMSS8550-H	SOT-23	PNP	0.300	-25	-1.50	200-350	-1	-100	-0.50	-800	-80	100
MMSS8550-L	SOT-23	PNP	0.300	-25	-1.50	120-200	-1	-100	-0.50	-800	-80	100
MMSS8550W-H	SOT-323	PNP	0.200	-25	-1.50	200-350	-1	-100	-0.50	-800	-80	100
2SA1298-Y	SOT-23	PNP	0.200	-30	-0.80	160-320	-1	-100	-0.40	-500	-20	150
BC858AL3	DFN1006-3	PNP	0.150	-30	-0.10	110-220	-5	-2	-0.65	-100	-5	150
BC858BL3	DFN1006-3	PNP	0.150	-30	-0.10	200-450	-5	-2	-0.65	-100	-5	150
BC858CL3	DFN1006-3	PNP	0.150	-30	-0.10	420-800	-5	-2	-0.65	-100	-5	250
BC858AM3	SOT-723	PNP	0.265	-30	-0.10	110-220	-5	-2	-0.30	-10	-0.5	150
BC858BM3	SOT-723	PNP	0.265	-30	-0.10	200-450	-5	-2	-0.30	-10	-0.5	300
BC858CM3	SOT-723	PNP	0.265	-30	-0.10	420-800	-5	-2	-0.30	-10	-0.5	300
BC858AW	SOT-323	PNP	0.200	-30	-0.10	125-250	-5	-2	-0.65	-100	-5	250
BC858BW	SOT-323	PNP	0.200	-30	-0.10	220-475	-5	-2	-0.65	-100	-5	250
BC858CW	SOT-323	PNP	0.200	-30	-0.10	420-800	-5	-2	-0.65	-100	-5	300
BC858A	SOT-23	PNP	0.310	-30	-0.10	125-250	-5	-2	-0.30	-10	-0.5	300
BC858B	SOT-23	PNP	0.310	-30	-0.10	220-475	-5	-2	-0.30	-10	-0.5	250
BC858C	SOT-23	PNP	0.310	-30	-0.10	420-800	-5	-2	-0.30	-10	-0.5	150
BC858CV	SOT-563	PNP*2	0.150	-30	-0.10	420-800	-5	-2	-0.30	-10	-0.5	100
FMMT5130	SOT-23	PNP	0.300	-30	-1.00	300	-2	-100	-0.10	-100	-1	100
MMBTA63	SOT-23	PNP	0.300	-30	-0.50	5000	-5	-10	-1.50	-100	-0.1	100
MMBTA64	SOT-23	PNP	0.300	-30	-0.50	10000	-5	-10	-1.50	-100	-0.1	100
2SA1577-R	SOT-323	PNP	0.200	-32	-0.50	180-390	-3	-10	-0.40	-100	-10	100
DMMT3906	SOT-363	PNP*2	0.200	-40	-0.20	100-300	-1	-10	-0.40	-50	-5	100
FMMT5240	SOT-23	PNP	0.300	-40	-2.00	300	-2	-100	-0.10	-100	-1	100
FMMT591B	SOT-23	PNP	0.300	-40	-1.00	300	-5	-1	-0.20	-100	-1	100
MMBT3906	SOT-23	PNP	0.300	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	100
MMBT3906L3	DFN1006-3	PNP	0.150	-40	-0.20	100-300	-1	-10	-0.40	-50	-5	150
MMBT3906T	SOT-523	PNP	0.150	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	150
MMBT4403	SOT-23	PNP	0.350	-40	-0.60	100	-1	-10	-0.40	-150	-15	150
MMDT3906	SOT-363	PNP*2	0.200	-40	-0.20	100-300	-1	-10	-0.40	-50	-5	150
MMDT3906-TPQ2	SOT-363	PNP*2	0.200	-40	-0.20	100-300	-1	-10	-0.25	-50	-5	150
MMDT3906V	SOT-563	PNP*2	0.150	-40	-0.20	100-300	-1	-10	-0.40	-50	-5	150
MMDT4403	SOT-363	PNP*2	0.200	-40	-0.60	20	-2	-500	-0.75	-500	-50	100
MMST3906	SOT-323	PNP	0.200	-40	-0.20	100-300	-1	-10	-0.30	-50	-5	100
MMST4403	SOT-323	PNP	0.200	-40	-0.60	100-300	-2	-150	-0.40	-150	-15	150
BC807-16	SOT-23	PNP	0.300	-45	-0.50	100-250	-1	-100	-0.70	500	50	150
BC807-25	SOT-23	PNP	0.300	-45	-0.50	160-400	-1	-100	-0.70	500	50	100
BC807-40	SOT-23	PNP	0.300	-45	-0.50	250-600	-1	-100	-0.70	500	50	180
BC807-16W	SOT-323	PNP	0.200	-45	-0.50	100-250	-1	-100	-0.70	-500	-50	100

Small Signal Bipolar Transistors

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _E (mA)	f _T (MHz)
BC807-25W	SOT-323	PNP	0.200	-45	-0.50	160-400	-1	-100	-0.70	-500	-50	80
BC807-40W	SOT-323	PNP	0.200	-45	-0.50	250-600	-1	-100	-0.70	-500	-50	80
BC807DS	SOT23-6L	PNP*2	0.300	-45	-0.50	160-400	-1	-100	-0.70	-500	-50	80
BC857AL3	DFN1006-3	PNP	0.150	-45	-0.10	110-220	-5	-2	-0.65	-100	-5	100
BC857BL3	DFN1006-3	PNP	0.150	-45	-0.10	200-450	-5	-2	-0.65	-100	-5	100
BC857CL3	DFN1006-3	PNP	0.150	-45	-0.10	420-800	-5	-2	-0.65	-100	-5	100
BC857AM3	SOT-723	PNP	0.265	-45	-0.10	110-220	-5	-2	-0.30	-10	-0.5	100
BC857BM3	SOT-723	PNP	0.265	-45	-0.10	200-450	-5	-2	-0.30	-10	-0.5	100
BC857CM3	SOT-723	PNP	0.265	-45	-0.10	420-800	-5	-2	-0.30	-10	-0.5	100
BC857AW	SOT-323	PNP	0.200	-45	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC857BW	SOT-323	PNP	0.200	-45	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC857CW	SOT-323	PNP	0.200	-45	-0.10	420-800	-5	-2	-0.65	-100	-5	100
BC857A	SOT-23	PNP	0.310	-45	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC857B	SOT-23	PNP	0.310	-45	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200
BC857C	SOT-23	PNP	0.310	-45	-0.10	420-800	-5	-2	-0.30	-10	-0.5	200
BC857AT	SOT-523	PNP	0.150	-45	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC857BT	SOT-523	PNP	0.150	-45	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC857CT	SOT-523	PNP	0.150	-45	-0.10	420-800	-5	-2	-0.65	-100	-5	100
BC857BS	SOT-363	PNP*2	0.300	-45	-0.20	220-475	-5	-2	-0.30	-10	-0.5	200
BC857BV	SOT-563	PNP*2	0.150	-45	-0.10	200-475	-5	-2	-0.40	-100	-5	100
BC857S	SOT-363	PNP*2	0.300	-45	-0.20	125-630	-5	-2	-0.30	-10	-0.5	200
BCW68G	SOT-23	PNP	0.330	-45	-0.80	160-240	-1	-100	-0.30	-100	-10	200
BCW68H	SOT-23	PNP	0.330	-45	-0.80	250-630	-2	-100	-0.30	-100	-10	100
MMS9015-H	SOT-23	PNP	0.200	-45	-0.10	450-1000	-5	-1	-0.30	-100	-10	150
MMS9015-L	SOT-23	PNP	0.200	-45	-0.10	200-450	-5	-1	-0.30	-100	-10	150
2SA1037-R	SOT-23	PNP	0.200	-50	-0.15	180-390	-6	-1	-0.50	-5	-5	120
2SA1576A-Q	SOT-323	PNP	0.200	-50	-0.15	120-270	-6	-1	-0.50	-50	-5	100
2SA1576A-R	SOT-323	PNP	0.200	-50	-0.15	180-390	-6	-1	-0.50	-50	-5	100
2SA1774-R	SOT-523	PNP	0.150	-50	-0.15	180-390	-6	-1	-0.50	-50	-5	140
2SA812-M6	SOT-23	PNP	0.200	-50	-0.10	200-400	-6	-1	-0.30	-100	-10	180
2SA812-M7	SOT-23	PNP	0.200	-50	-0.10	300-600	-6	-1	-0.30	-100	-10	180
FMMT591	SOT-23	PNP	0.500	-60	-1.00	100-300	-5	-500	-0.60	-1000	-100	150
MMBT2907A	SOT-23	PNP	0.350	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMBT2907AT	SOT-523	PNP	0.150	-60	-0.60	100-300	-10	-10	-0.40	-150	-15	140
MMBTA55	SOT-23	PNP	0.225	-60	-0.50	100	-1	-10	-0.25	-100	-10	50
MMDT2907A	SOT-363	PNP*2	0.200	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMDT2907A-TPQ2	SOT-363	PNP*2	0.200	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMDT2907V	SOT-563	PNP*2	0.150	-60	-0.60	100	-10	-1	-0.40	-150	-15	200
MMST2907A	SOT-323	PNP	0.200	-60	-0.60	100	-10	-1	-1.60	-500	-50	200
SMBT2907A	SOT23-6L	PNP*2	0.700	-60	-0.60	100-300	-10	-150	-0.40	-150	-15	200
BC856A	SOT-23	PNP	0.310	-65	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC856B	SOT-23	PNP	0.310	-65	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200
BC856AL3	DFN1006-3	PNP	0.150	-65	-0.10	110-220	-5	-2	-0.65	-100	-5	100
BC856BL3	DFN1006-3	PNP	0.150	-65	-0.10	200-450	-5	-2	-0.65	-100	-5	100

Small Signal Bipolar Transistors

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _E (mA)	f _T (MHz)
BC856AM3	SOT-723	PNP	0.265	-65	-0.10	110-220	-5	-2	-0.30	-10	-0.5	100
BC856BM3	SOT-723	PNP	0.265	-65	-0.10	200-450	-5	-2	-0.30	-10	-0.5	100
BC856AW	SOT-323	PNP	0.200	-65	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC856BW	SOT-323	PNP	0.200	-65	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC856BS	SOT-363	PNP*2	0.200	-65	-0.10	200-450	-5	-2	-0.30	-10	-0.5	100
BC856BS-TPQ2	SOT-363	PNP*2	0.200	-65	-0.10	200-450	-5	-2	-0.30	-10	-0.5	100
BC856S	SOT-363	PNP*2	0.200	-65	-0.10	110	-5	-2	-0.30	-10	-0.5	100
MMBTA56	SOT-23	PNP	0.225	-80	-0.50	100	-1	-10	-0.25	-100	-10	50
MMSTA56	SOT-323	PNP	0.200	-80	-0.50	100	-1	-10	-0.25	-100	-10	100
MMBT5401	SOT-23	PNP	0.300	-150	-0.60	100-300	-5	-10	-0.50	-50	-5	100
MMDT5401	SOT-363	PNP*2	0.200	-150	-0.20	100-300	-5	-10	-0.50	-50	-5	300
MMST5401	SOT-323	PNP	0.200	-150	-0.20	60-300	-5	-10	-0.50	-50	-5	300
MMBTA92	SOT-23	PNP	0.300	-300	-0.30	100-200	-10	-10	-0.20	-20	-2	50
MMSTA92	SOT-323	PNP	0.200	-300	-0.10	40	-10	-10	-0.40	-20	-2	50
EMZ7	SOT-563	NPN+PNP	0.200	12/-12	0.5/-0.5	200	2/-2	10/-10	0.22/-0.22	200/-200	10/-10	420
MMDT2227	SOT-363	NPN+PNP	0.200	40/-60	0.6/-0.6	35/75	10/-10	0.1/-0.1	0.3/-0.4	150/-150	15/-15	300/200
MMDT3946	SOT-363	NPN+PNP	0.200	40/-40	0.2/-0.2	100-300	1/-1	10/-10	0.3/-0.4	50/-50	5/-5	300/250
MMDT3946-TPQ2	SOT-363	NPN+PNP	0.200	40/-40	0.2/-0.2	100-300	1/-1	10/-10	0.3/-0.4	50/-50	5/-5	300/250
MMDT4413	SOT-363	NPN+PNP	0.200	40/-40	0.6/-0.6	40/20	2/-2	500/-500	0.75/-0.75	500/-500	50/-50	250/200
SMBT2227A	SOT23-6L	NPN+PNP	0.700	40/-60	0.6/-0.6	100-300	10/-10	150/-150	0.3/-0.4	150/-150	15/-15	300/200
BC817DPN	SOT23-6L	NPN+PNP	0.370	45/-45	0.5/-0.5	160-400	1/-1	100/-100	0.7/-0.70	500/-500	50/-50	100/80
BC847PN	SOT-363	NPN+PNP	0.200	45/-45	0.1/-0.1	200-450/220-475	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
BC847PN-TPQ2	SOT-363	NPN+PNP	0.200	45/-45	0.1/-0.1	200-450/220-475	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
BC847VPN	SOT-563	NPN+PNP	0.200	45/-45	0.1/-0.1	200-450/220-475	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
EMZ1	SOT-563	NPN+PNP	0.150	50/-50	0.15/-0.15	120-560	6/-6	1/-1	0.4/-0.5	50/-50	5/-5	180/140
EMZ1-TPQ2	SOT-563	NPN+PNP	0.150	50/-50	0.15/-0.15	120-560	6/-6	1/-1	0.4/-0.5	50/-50	5/-5	180/140
UMZ2N	SOT-363	NPN+PNP	0.150	50/-50	0.15/-0.15	120-560	6/-6	1/-1	0.4/-0.5	50/-50	5/-5	180/140
BC846BPN	SOT-363	NPN+PNP	0.200	65/-65	0.1/-0.1	200-450	5/-5	2/-2	0.1/-0.3	10/-10	0.5/-0.5	100
BC846BPN-TPQ2	SOT-363	NPN+PNP	0.200	65/-65	0.1/-0.1	200-450	5/-5	2/-2	0.1/-0.3	10/-10	0.5/-0.5	100
MMDT5451	SOT-363	NPN+PNP	0.200	160/-150	0.2/-0.2	100-300	5/-5	10/-10	0.2/-0.5	50/-50	5/-5	100-300
SMBT445V6	SOT23-6L	NPN+Zener	0.380	40	0.60	100-300	1	0.15	0.40	150	15	250
SMBT445V6A	SOT23-6L	NPN+Zener	0.380	45	0.50	250-600	1	100	0.70	500	50	100

Medium Power Bipolar Transistors

Medium Power Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
PXT8050-D	SOT-89	NPN	0.5	25	1.5	160-300	1	100	0.5	800	80	100
BD882-Y	SOT-89	NPN	0.5	30	3	160-320	2	1000	0.5	2000	200	50
2SD1664-R	SOT-89	NPN	0.5	32	1	180-390	3	100	0.4	500	50	150
PXT2222A	SOT-89	NPN	0.5	40	0.6	100-300	10	150	0.3	150	15	300
PXT3904	SOT-89	NPN	0.5	40	0.2	100-300	1	10	0.2	10	1	300
PZT2222A	SOT-223	NPN	1	40	0.6	100-300	10	150	0.3	150	15	300
PZT3904	SOT-223	NPN	1	40	0.2	100-300	1	10	0.2	10	1	300
BCP54-16	SOT-223	NPN	1.5	45	1	100-250	2	150	0.5	500	50	100
BCX54	SOT-89	NPN	0.5	45	1	63-250	2	150	0.5	500	50	130
BCX54-16	SOT-89	NPN	0.5	45	1	100-250	2	150	0.5	500	50	130
2SC2873-Y	SOT-89	NPN	0.5	50	2	120-240	2	500	0.5	1000	50	120
FMMT4350X	SOT-89	NPN	0.5	50	3	300	2	100	0.08	500	50	100
BCP55-16	SOT-223	NPN	1.5	60	1	100-250	2	150	0.5	500	50	100
BCX55	SOT-89	NPN	0.5	60	1	63-250	2	150	0.5	500	50	130
BCX55-16	SOT-89	NPN	0.5	60	1	100-250	2	150	0.5	500	50	130
BD882HY	SOT-89	NPN	0.5	70	3	160-320	2	1000	0.5	2000	200	50
2SD1898-R	SOT-89	NPN	0.5	80	1	180-390	3	500	0.15	500	20	100
BCP56-16	SOT-223	NPN	1.5	80	1	100-250	2	150	0.5	500	50	100
BCX56	SOT-89	NPN	0.5	80	1	63-250	2	150	0.5	500	50	130
BCX56-16	SOT-89	NPN	0.5	80	1	100-250	2	150	0.5	500	50	130
MJD122	DPAK	NPN	1.5	100	8	1000-12000	4	4000	2	4000	16	
MJD31C	DPAK	NPN	1.25	100	3	10-75	4	3000	1.2	3000	375	3
TIP122L	TO-220	NPN	2	100	5	1000	3	500	2	3000	12	
TIP31C	TO-220	NPN	2	100	3	25	4	1000	1.2	3000	375	3
TIP41C	TO-220	NPN	2	100	6	30	4	300	1.5	6000	600	3
2SC2881-Y	SOT-89	NPN	0.5	120	0.8	120-240	5	100	1	500	50	120
2SC2383P-O	SOT-89	NPN	0.5	160	1	100-200	5	200	1	500	50	20
2SC2383P-Y	SOT-89	NPN	0.5	160	1	160-320	5	200	1	500	50	20
CXT5551	SOT-89	NPN	0.5	160	0.6	80	5	1	0.15	10	1	100
PZT5551	SOT-223	NPN	1	160	0.6	80	5	1	0.15	10	1	300
PZTA42	SOT-223	NPN	1	300	0.2	25	10	1	0.5	20	2	50
2SB1386-R	SOT-89	PNP	0.5	-20	-5	180-390	-2	-500	-1	-4000	-100	120
BC869	SOT-89	PNP	0.5	-20	-1	100-375	-1	-500	-0.5	-1000	-100	40
BC869-25	SOT-89	PNP	0.5	-20	-1	160-375	-1	-500	-0.5	-1000	-100	40
2SB1412-R	DPAK	PNP	1	-30	-5	180-390	-2	-500	-1	-4000	-100	120
BD772-Y	SOT-89	PNP	0.5	-30	-3	160-320	-2	-1000	-0.5	-2000	-200	80
2SB1188-Q	SOT-89	PNP	0.5	-32	-2	120-270	-3	-500	-0.8	-2000	-200	80
FMMT5240X	SOT-89	PNP	0.5	-40	-2	300	-5	-1	-0.14	-100	-5	100
PXT3906	SOT-89	PNP	0.5	-40	-0.2	100-300	-1	-10	-0.25	-10	-1	250
BCP51-16	SOT-223	PNP	1.5	-45	-1	100-250	-2	-150	-0.5	-500	-50	100
2SA1213-Y	SOT-89	PNP	0.5	-50	-2	120-240	-2	-500	-0.5	1000	50	120
2SB1184-Q	DPAK	PNP	1	-50	-3	120-270	-3	-500	-1	-2000	-200	70
FMMT5350X	SOT-89	PNP	0.5	-50	-3	200	-2	-500	-0.09	-500	-50	100
BCP52-16	SOT-223	PNP	1.5	-60	-1	100-250	-2	-150	-0.5	-500	-50	100

Medium Power Bipolar Transistors

Medium Power Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
BCX52	SOT-89	PNP	0.5	-60	-1	63-250	-2	-150	-0.5	-500	-50	50
BCX52-16	SOT-89	PNP	0.5	-60	-1	100-250	-2	-150	-0.5	-500	-50	50
PZT2907A	SOT-223	PNP	1	-60	-0.6	100-300	-10	-150	-0.4	-150	-15	200
TIP42A	TO-220	PNP	2	-60	-6	30	-4	-300	-1.5	-6000	-600	3
BCP53-16	SOT-223	PNP	1.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	100
BCX53	SOT-89	PNP	0.5	-80	-1	63-250	-2	-150	-0.5	-500	-50	50
BCX53-16	SOT-89	PNP	0.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	50
MJD127	DPAK	PNP	1.5	-100	-8	1000-12000	-4	-4000	-2	-4000	-16	
MJD32C	DPAK	PNP	1.25	-100	-3	10-50	-4	-3000	-1.2	-3000	-375	3
TIP127L	TO-220	PNP	2	-100	-5	1000	-3	-500	-2	-3000	-12	
TIP32C	TO-220	PNP	2	-100	-3	25	-4	-1000	-1.2	-3000	-375	3
TIP42C	TO-220	PNP	2	-100	-6	30	-4	-300	-1.5	-6000	-600	3
CXT5401	SOT-89	PNP	0.5	-150	-0.5	50	-5	-1	-0.2	-10	-1	100

Pre-biased Transistors

Pre-biased Transistors

Part Number	Package	Polarity	Power Dissipation	Output Current	Supply Voltage	DC Current Gain	Output Voltage	Input Resistance		Transition frequency
			P _o (mW)	I _o (mA)	V _{cc} (V)	G _i	V _o (V)	R _i (KΩ)	R _z (KΩ)	f _r (MHZ)
DTC115EM	SOT-723	NPN	100	100	50	82	0.3	100	100	250
DTC123EM	SOT-723	NPN	100	100	50	20	0.3	2.2	2.2	250
DTC123JM	SOT-723	NPN	100	100	50	80	0.3	2.2	47	250
DTC124XM	SOT-723	NPN	100	100	50	68	0.3	22	47	200
DTC143TM	SOT-723	NPN	100	100	50	600	0.3	4.7		250
DTC143ZM	SOT-723	NPN	100	100	50	80	0.3	4.7	47	250
DTC144EM	SOT-723	NPN	100	100	50	68	0.3	47	47	250
DTC114EE	SOT-523	NPN	150	100	50	30	0.3	10	10	250
DTC114EM	SOT-723	NPN	150	100	50	30	0.3	10	10	250
DTC114TE	SOT-523	NPN	150	100	50	300	0.3	10		250
DTC114YE	SOT-523	NPN	150	100	50	68	0.3	10	47	250
DTC123JE	SOT-523	NPN	150	100	50	80	0.3	2.2	47	250
DTC124EE	SOT-523	NPN	150	100	50	56	0.3	22	22	250
DTC143EE	SOT-523	NPN	150	100	50	20	0.3	4.7	4.7	250
DTC143EM	SOT-723	NPN	150	100	50	20	0.3	4.7	4.7	250
DTC143TE	SOT-523	NPN	150	100	50	300	0.3	4.7		250
DTC143ZE	SOT-523	NPN	150	100	50	80	0.3	4.7	47	250
DTC144EE	SOT-523	NPN	150	100	50	68	0.3	47	47	250
DTC144EL3	DFN1006-3	NPN	150	100	50	68	0.3	47	47	200
DTC144TE	SOT-523	NPN	150	100	50	300	0.3	47		250
EMH10	SOT-563	NPN*2	150	100	50	80	0.3	2.2	47	250
EMH11	SOT-563	NPN*2	150	100	50	30	0.3	10	10	250
EMH13	SOT-563	NPN*2	150	100	50	80	0.3	4.7	47	250
EMH4	SOT-563	NPN*2	150	100	50	600	0.3	10		250
EMH9	SOT-563	NPN*2	150	100	50	68	0.3	10	47	200
UMH10N	SOT-363	NPN*2	150	100	50	80	0.3	2.2	47	250
UMH11N	SOT-363	NPN*2	150	100	50	30	0.3	10	10	250
UMH13N	SOT-363	NPN*2	150	100	50	80	0.3	4.7	47	250
UMH15N	SOT-363	NPN*2	150	100	50	20	0.3	4.7	4.7	250
UMH1N	SOT-363	NPN*2	150	100	50	56	0.3	22	22	250
UMH2N	SOT-363	NPN*2	150	100	50	68	0.3	47	47	250
UMH3N	SOT-363	NPN*2	150	100	50	600	0.3	4.7		250
UMH9N	SOT-363	NPN*2	150	100	50	68	0.3	10	47	250
DDTC123YCA	SOT-23	NPN	200	500	50	56	0.3	2.2	10	200
DDTC142TC	SOT-23	NPN	200	500	50	56	5	0.47		200
DTC113ZCA	SOT-23	NPN	200	100	50	33	0.3	1	10	250
DTC113ZUA	SOT-323	NPN	200	100	50	33	0.3	1	10	250
DTC114EUA	SOT-323	NPN	200	100	50	30	0.3	10	10	250
DTC114TCA	SOT-23	NPN	200	100	50	300	0.3	10		250
DTC114TUA	SOT-323	NPN	200	100	50	300	0.3	10		250
DTC114YM	SOT-723	NPN	200	100	50	68	0.3	10	47	250
DTC114YUA	SOT-323	NPN	200	100	50	68	0.3	10	47	250
DTC123ECA	SOT-23	NPN	200	100	50	20	0.3	2.2	2.2	250
DTC123EUA	SOT-323	NPN	200	100	50	20	0.3	2.2	2.2	250

Pre-biased Transistors

Pre-biased Transistors

Part Number	Package	Polarity	Power Dissipation	Output Current	Supply Voltage	DC Current Gain	Output Voltage	Input Resistance		Transition frequency
			P _o (mW)	I _o (mA)	V _{cc} (V)	G _i	V _o (V)	R _i (KΩ)	R _z (KΩ)	f _r (MHZ)
DTC123JCA	SOT-23	NPN	200	100	50	80	0.3	2.2	47	250
DTC123JUA	SOT-323	NPN	200	100	50	80	0.3	2.2	47	250
DTC123YCA	SOT-23	NPN	200	100	50	33	0.3	2.2	10	250
DTC123YUA	SOT-323	NPN	200	100	50	33	0.3	2.2	10	250
DTC124ECA	SOT-23	NPN	200	100	50	56	0.3	22	22	250
DTC124EUA	SOT-323	NPN	200	100	50	56	0.3	22	22	250
DTC143ECA	SOT-23	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143EUA	SOT-323	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143TCA	SOT-23	NPN	200	100	50	600	0.3	4.7		250
DTC143TUA	SOT-323	NPN	200	100	50	300	0.3	4.7		250
DTC143XCA	SOT-23	NPN	200	100	50	30	0.3	4.7	10	200
DTC143XUA	SOT-323	NPN	200	100	50	30	0.3	4.7	10	250
DTC143ZUA	SOT-323	NPN	200	100	50	80	0.3	4.7	47	250
DTC144ECA	SOT-23	NPN	200	100	50	68	0.3	47	47	250
DTC144EUA	SOT-323	NPN	200	100	50	68	0.3	47	47	250
DTC144TCA	SOT-23	NPN	200	100	50	300	0.3	47		250
DTC144TUA	SOT-323	NPN	200	100	50	300	0.3	47		250
UMH18N	SOT-363	NPN*2	200	100	50	50	0.3	4.7	10	250
DTC114YCA	SOT-23	NPN	230	100	50	80	0.3	10	47	250
DTC114ECA	SOT-23	NPN	246	100	50	35	0.25	10	10	250
DTC143ZCA	SOT-23	NPN	246	100	50	80	0.3	4.7	47	250
DDTC113ZCA	SOT-23	NPN	250	500	50	70	0.3	1	10	250
DTA114EM	SOT-723	PNP	100	-100	-50	30	-0.3	10	10	250
DTA114YM	SOT-723	PNP	100	-70	-50	68	-5	10	47	250
DTA123JM	SOT-723	PNP	100	-100	-50	80	-0.3	2.2	47	250
DTA144EM	SOT-723	PNP	100	-100	-50	68	-0.3	47	47	250
DTA114EE	SOT-523	PNP	150	-100	-50	30	-0.3	10	10	250
DTA114TE	SOT-523	PNP	150	-100	-50	250	-0.3	10		250
DTA123EE	SOT-523	PNP	150	-100	-50	20	-0.3	2.2	2.2	
DTA123JE	SOT-523	PNP	150	-100	-50	80	-0.3	2.2	47	250
DTA124EE	SOT-523	PNP	150	-100	-50	56	-0.3	22	22	250
DTA143EE	SOT-523	PNP	150	-100	-50	30	-0.3	4.7	4.7	250
DTA143ZE	SOT-523	PNP	150	-100	-50	80	-0.3	4.7	47	250
DTA144EE	SOT-523	PNP	150	-100	-50	68	-0.3	47	47	250
UMB18N	SOT-363	PNP*2	150	-100	-50	30	-0.3	4.7	10	200
UMB4N	SOT-363	PNP*2	150	-100	-50	100	-0.3	10		250
UMB9N	SOT-363	PNP*2	150	-100	-50	68	-0.3	10	47	200
DDTA123YCA	SOT-23	PNP	200	-500	-50	56	-0.3	2.2	10	200
DTA113ZCA	SOT-23	PNP	200	-100	-50	33	-0.3	1	10	250
DTA113ZUA	SOT-323	PNP	200	-100	-50	33	-0.3	1	10	200
DTA114ECA	SOT-23	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114EUA	SOT-323	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114TCA	SOT-23	PNP	200	-100	-50	250	-0.3	10		250
DTA114TUA	SOT-323	PNP	200	-100	-50	250	-0.3	10		250

Pre-biased Transistors

Pre-biased Transistors

Part Number	Package	Polarity	Power Dissipation	Output Current	Supply Voltage	DC Current Gain	Output Voltage	Input Resistance		Transition frequency
			P _o (mW)	I _o (mA)	V _{cc} (V)	G _i	V _o (V)	R _i (KΩ)	R _e (KΩ)	f _t (MHZ)
DTA114YCA	SOT-23	PNP	200	-100	-50	68	-0.3	10	47	250
DTA114YUA	SOT-323	PNP	200	-100	-50	68	-0.3	10	47	250
DTA123ECA	SOT-23	PNP	200	-100	-50	30	-0.3	2.2	2.2	250
DTA123EUA	SOT-323	PNP	200	-100	-50	20	-0.3	2.2	2.2	250
DTA123JCA	SOT-23	PNP	200	-100	-50	80	-0.3	2.2	47	250
DTA123JUA	SOT-323	PNP	200	-100	-50	80	-0.3	2.2	47	250
DTA123YCA	SOT-23	PNP	200	-100	-50	33	-0.3	2.2	10	250
DTA123YUA	SOT-323	PNP	200	-100	-50	33	-0.3	2.2	10	250
DTA124ECA	SOT-23	PNP	200	-100	-50	56	-0.3	22	22	250
DTA124EUA	SOT-323	PNP	200	-100	-50	56	-0.3	22	22	250
DTA143ECA	SOT-23	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143EUA	SOT-323	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143XCA	SOT-23	PNP	200	-100	-50	30	-0.3	4.7	10	250
DTA143XUA	SOT-323	PNP	200	-100	-50	30	-0.3	4.7	10	250
DTA143ZCA	SOT-23	PNP	200	-100	-50	80	-0.25	4.7	47	250
DTA143ZUA	SOT-323	PNP	200	-100	-50	80	-0.3	4.7	47	250
DTA144ECA	SOT-23	PNP	200	-100	-50	68	-0.3	47	47	250
DTA144EUA	SOT-323	PNP	200	-100	-50	68	-0.3	47	47	250
EMD16	SOT-563	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	47	250
EMD22	SOT-563	NPN+PNP	150	100/-100	50/-50	80	0.3/-0.3	4.7	47	250
EMD9	SOT-563	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	10	47	250
EMD9-TPQ2	SOT-563	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	10	47	250
UMD10N	SOT-363	NPN+PNP	150	100/-100	50/-50	80	0.3/-0.3	2.2	47	250
UMD12N	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	47	47	250
UMD12N-TPQ2	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	47	47	200
UMD15N	SOT-363	NPN+PNP	150	100/-100	50/-50	20	0.3/-0.3	4.7	4.7	250
UMD18N	SOT-363	NPN+PNP	150	100/-100	50/-50	30	0.3/-0.3	4.7	10	200
UMD22N	SOT-363	NPN+PNP	150	100/-100	50/-50	80	0.3/-0.3	4.7	47	250
UMD2N	SOT-363	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	22	250
UMD3N	SOT-363	NPN+PNP	150	100/-100	50/-50	30	0.3/-0.3	10	10	250
UMD9N	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	10	47	250
UMD9N-TPQ2	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	10	47	250
UMF21N	SOT-363	NPN+PNP	150	100/-100	50	30	0.3	10	10	250
EMD3	SOT-563	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	10	10	250
EMD3-TPQ2	SOT-563	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	10	10	250

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