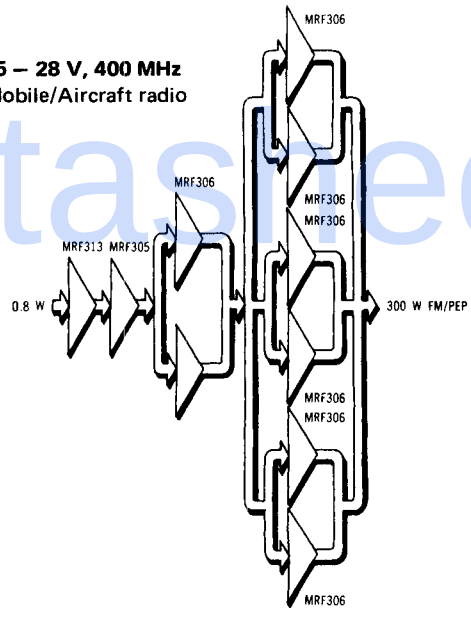
Device Type	P_{out} Output Power Watts	G_{PE} Power Gain dB Min.	V_{CC} Supply Voltage Volts	Package
106-175 MHz, VHF AM TRANSISTORS				
2N3866	1.0	10	28	TO-39
2N3553	2.5	10	28	TO-39
2N5641	7.0	8.4	28	144B-04
2N5642	20	8.2	28	145A-07
2N5643	40	7.6	28	145A-07
2N6166	100	6.0	28	211-10
225-400 MHz, UHF AM TRANSISTORS				
MRF509	1.0	10	28	207A-01
2N3866	1.0	10	28	TO-39
MRF313	1.0	16 (Typ)	28	305-01
MRF313A	1.0	16 (Typ)	28	305A-01
MRF517A	2.0	12	28	244-04
2N5635	2.5	6.2	28	144B-04
MRF5175	5.0	11	28	244-04
2N5636	7.5	5.7	28	144B-04
MRF304*	10	9.0	28	278-06
MRF5176	15	10	28	244-04
2N5637	20	4.6	28	154A-07
MRF5177	30	6.0	28	215-01
MRF5177A	30	6.0	28	145A-07
MRF325*	30	8.0	28	278-06
MRF306**	60	8.0	28	278-06

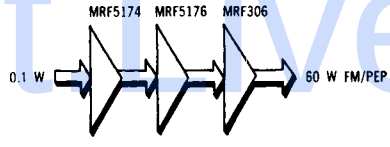
*Controlled "Q" transistor. See EB-19.

**Gold metallization, double matched controlled "Q" transistor. See EB-26, EB-19.

Chain 15 – 28 V, 400 MHz
Fixed/Mobile/Aircraft radio



Chain 16 – 28 V, 400 MHz
Aircraft radio



UHF and Microwave Oscillators

The Transistors listed below are for UHF and microwave applications as initial signal sources or as output stages of limited range transmitters. Devices are listed in order of increasing test frequency.

Device Type	Test Conditions f MHz	Test Conditions V_{CC} Volts	P_{out} mW Typ* Min.	f_T MHz Typ* Min.	Package
2N3866	400	15	1000	500	TO-39
2N5179	500	10	20	900	TO-72
2N2857	500	10	30	1000	TO-72
2N3839	500	6.0	30	1000	TO-72
MM8009	1680	20	200	1000	TO-39
2N5108	1680	20	300	1200	TO-39
MRF905	1680	20	500*	2200*	TO-46

Low-Noise

The low-noise devices listed are produced with carefully controlled r_b and f_T to optimize device noise performance. Devices listed in the matrix are classified according to noise figure performance versus frequency.

NF dB	FREQUENCY MHz						Polarity
	60	100	200	450	1000	2000	
1.5	2N5829 2N5031	2N5829 2N5031	 MRF904				PNP NPN
2.0	2N4957 2N5032	2N4957 2N5032	2N5829 2N5031	 MRF904	 MRF901		PNP NPN
2.5	2N4958 2N5032	2N4958 2N5032	2N4957 2N5032	2N5829 2N5031	 MRF901		PNP NPN
3.0	2N4959 2N2857	2N4959 2N2857	2N4958 2N5032	2N4957 2N5032	2N5829 MRF901	 MRF902	PNP NPN
3.5	2N4959 2N5179	2N4959 2N5179	2N4959 2N2857	2N4958 2N5032	2N4957 2N5031	 MRF902	PNP NPN
4.0	2N4959 2N5179	2N4959 2N5179	2N4959 2N5179	2N4959 2N2857	2N4958 2N5031	 MRF911	PNP NPN
4.5	2N4959 2N5179	2N4959 2N5179	2N4959 2N5179	2N4959 2N2857	2N4959 2N5032		PNP NPN

General-Purpose Amplifier

The behavious of f_T as a function of I_C is critical in most Class A amplifier applications. The devices listed in the matrix form below are classified according to f_T versus I_C.

f_T GHz Min.	COLLECTOR CURRENT mA							Polarity
	2.0	5.0	10	20	50	100	200	
5.0			BFR90	BFR91	BFR96			NPN
4.5			 BFR90	MM4049 BFR91	 BFR96	 BFR96		PNP NPN
4.0			MM4049 BFR90	MM4049 BFR91				PNP NPN
3.5		MM4049 BFR90	MM4049 BFR90	MM4049 BFR91	 BFR91			PNP NPN
2.5	MFR901	MRF901	2N5835	2N5835	2N5836			PNP NPN
2.0		2N5031	2N5841	2N5841	2N5836	2N5837	2N5837	PNP NPN
1.5	 2N5031	2N4957 2N3960	 2N6304	 2N6304	2N5583 2N5943	2N5583 2N5109	 2N5837	PNP NPN
1.2	2N4957	2N4959 2N2857	 2N6305	 2N6305	2N5583 2N5943	2N5583 2N5109	2N5583	PNP NPN
1.0	 2N5179	 2N5179	 2N2857	2N5583 2N5943	2N5160 MM8001	2N5160 2N5108	2N5583	PNP NPN
0.8	 MRF502	 MRF502	 MRF502	2N5160 2N3866	2N5160 2N3866	2N5160 2N4428	2N5583	PNP NPN
0.6	 MRF501	 MRF501	 MRF501	 2N3866	 2N4073	MM4019 2N3553	MM4019 2N3553	PNP NPN
0.5				MRF532* MRF531**	MRF532* MRF531**			PNP NPN

*BV_{CEO} = 80 Vdc
**BV_{CEO} = 100 Vdc.