

GaAs LINEAR IC

High frequency linear IC

Package code	Type No.	Function & Characteristics	Status
MPAK-4	HA21008 (5V)	BS tuner Amp. Vcc = 5 V, I _o = 32 mA max NF = 8.5 dB typ, PG = 10.5 dB typ (f = 900 MHz)	※
MPAK-5	HA22012	LNA, VDD = 3 V, I _{dd} = 3 mA typ, NF = 1.9 dB typ (f = 1.9 GHz), PG = 13.5 dB typ (f = 1.9 GHz)	○
	HA22022	LNA, VDD = 3 V, I _{dd} = 3 mA typ, NF = 1.3 dB typ (f = 1.5 GHz), PG = 16 dB typ (f = 1.5 GHz)	○
MPAK-6	HA22016	ANTSW, VDD = 3 V Li = 0.7 dB typ (f = 1.9 GHz)	SPL
MSP-18	HA21001MS	VHF/UHF tuner mixer, Vcc = 9 V I _o = 34 mA typ, CG2 = 23 dB typ (f = 460 MHz) CG3 = 31 dB typ (f = 860 MHz)	※
	HA21009MS (5V)	BS tuner mixer, Vcc = 5 V I _o = 70 mA max, CG = 35 dB typ, GR = 50 dB typ (f = 990 MHz)	※

Package code	Type No.	Function & Characteristics	Status
TSSOP-14	HA22001T (5V)	LNA, Double balance mixer, Vcc = 5 V typ, I _Q = 78 mA typ LNA: NF = 1.7 dB typ, PG = 16 dB typ (f = 960 MHz) Mixer: NF = 7 dB typ, CG = 10 dB typ (f = 960 MHz)	※
	HA22002T	LNA, VDD = 3 V, I _{dd} = 3 mA typ, NF = 2 dB typ (f = 1.9 GHz), PG = 14.5 dB typ (f = 1.9 GHz)	※
	HA22003T	Down converter, VDD = 3 V, I _{dd} = 5.3 mA typ NF = 7 dB typ, (f = 1.9 GHz) CG = 8.5 dB typ (f = 1.9 GHz)	○
	HA22004T	Up converter, VDD = 3 V, I _{dd} = 8 mA typ CG = 11.5 dB typ, IF = 240 MHz	○
	HA22006T	ANT SW, V _{ct} = 0/-3 V, V _{cr} = 3/0V Li = 0.7 dB typ, Iso = 30 dB typ	※
	HA23001T	PA, VDD = 3.5 V, I _{dd} = 240 mA PG = 19.5 dB typ at f = 1.9 GHz	○

HIGH FREQUENCY POWER MOS FET

High frequency power amplifier

Package code	Type No.	Ratings		Characteristics			Status	
		V _{oss} (V)	I _D (A)	Pout typ (W)				
				f (MHz)	Pin (W)	V _{DD} (V)		
TO-220 AB	2SK408	180	2	16	28	0.15	80	※
	2SK409	180	2	16	28	0.15	80	※
RFPK-A	2SK410	180	8	180	28	5.0	80	○
RFPK-B	2SK1575	180	16	220	190	10.0	80	○
	2SK1999	120	12	175	200	5.0	60	△
	2SK2216	60	20	140	860	15	28	○
RFPK-C	2SK2217	60	10	60	860	6	28	SPL

Package code	Type No.	Ratings		Characteristics			Status	
		V _{oss} (V)	I _D (A)	Pout min (dBm)				
				f (MHz)	Pin (dBm)	V _{DD} (V)		
UPAK	2SK2596	17	0.4	30.2	836.5	18	12	○
	2SK2795	10	0.17	24	836.5	13	4.7	○
RP8P	2SK2595	17	1.1	37.3	836.5	29.5	12	○
	2SK2794	10	0.7	31	836.5	23	4.7	○

POWER TRANSISTOR

General amplifier

Package code	Type No.	Ratings		Characteristics		Status
		V _{CEO} (V)	I _c (A)	h _{FE}	V _{CE} (sat) (V) max	
DPAK	2SB1407(L) / (S)	-35	-2.5	60 - 320	-1.0	○
	2SB1409(L) / (S)	-160	-1.5	60 - 200	-1.0	○
	2SD2121(L) / (S)	35	2.5	60 - 320	1.0	○
	2SD2122(L) / (S)	120	1.5	60 - 200	1.0	○
	2SD2123(L) / (S)	160	1.5	60 - 200	1.0	○
TO-126 MOD	2SA715	-35	-2.5	60 - 320	-1.0	○
	2SA743	-50	-1.0	60 - 200	-1.5	○
	2SA743A	-80	-1.0	60 - 200	-1.5	○
	2SA1810	-200	-0.2	60 - 200	-1.0	○
	2SB648	-120	-50 m	60 - 320	-2.0	※
	2SB648A	-160	-50 m	60 - 200	-2.0	※
	2SB649	-120	-1.5	60 - 320	-1.0	○
	2SB649A	-160	-1.5	60 - 200	-1.0	○
	2SB874	-60	-2.0	60 - 200	-1.0	※
	2SB1109	-160	-0.1	60 - 320	-2.0	※
	2SB1110	-200	-0.1	60 - 320	-2.0	※
	2SC1162	35	2.5	60 - 320	1.0	○
	2SC1212	50	1.0	60 - 200	1.5	○
	2SC1212A	80	1.0	60 - 200	1.5	○
	2SC2611	300	0.1	30 - 200	1.5	○
	2SC3652	20	0.3	40 - 200	2.0	○
	2SC4046	120	0.2	250 - 800	1.0	○
	2SC4704	200	0.2	60 - 200	1.0	○
	2SD668	120	50 m	60 - 320	2.0	※
	2SD668A	160	50 m	60 - 200	2.0	※
	2SD669	120	1.5	60 - 320	1.0	○

Package code	Type No.	Ratings		Characteristics		Status
		V _{CEO} (V)	I _c (A)	h _{FE}	V _{CE} (sat) (V) max	
TO-126 MOD	2SD669A	160	1.5	60 - 200	1.0	○
	2SD1177	60	2.0	60 - 200	1.0	※
	2SD1609	160	0.1	60 - 320	2.0	○
	2SD1610	200	0.1	60 - 320	2.0	○
TO-126 FM	2SA1889	-200	-0.2	60 - 200	-1.0	△
	2SA1958	-150	-0.3	50 - 150	-1.0	SPL
	2SC4828	300	0.1	40 - 200	1.5	○
	2SC4934	120	0.2	250 - 800	1.0	○
	2SC5023	100	0.2	60 - 200	1.0	△
	2SC5024	200	0.2	60 - 200	1.0	△
	2SC5025	20	0.3	40 - 200	2.0	△
	2SC5120	150	0.3	50 - 150	1.0	SPL
	2SC5237	250	0.15	60 - 200	1.0	SPL
	2SD2491	160	0.1	60 - 320	2.0	○
	2SD2492	200	0.1	60 - 320	2.0	○
	TO-220 AB	2SB856	-50	-3.0	35 - 200	-1.2
2SB857		-50	-4.0	60 - 320	-1.0	○
2SB858		-60	-4.0	60 - 320	-1.0	○
2SB859		-80	-4.0	60 - 200	-2.0	○
2SB860		-100	-4.0	50 - 250	-1.0	○
2SB861		-150	-2.0	60 - 200	-3.0	○
2SD1133		50	4.0	60 - 320	1.0	○
2SD1134		60	4.0	60 - 320	1.0	○
2SD1135		80	4.0	60 - 200	2.0	○
TO-3P		2SD2342	80	6.0	60 - 200	1.5