



**Feburary 2011**  
**Vendor Component Libraries - Agilent Wireless Semiconductor Division (WSD)**  
**Components**

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Intel@ Math Kernel Library, <http://www.intel.com/software/products/mkl>

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# WSD Components

The Agilent Vendor Component Libraries Update enables you to update the models for Agilent Wireless Semiconductor Division (WSD) components. This library includes 447 S-Parameters, 81 HfDiodes, 26 RfTransistors, and 5 Microwave Transistor Library components, as well as all software needed to run in Advanced Design System.

## Available HfDiode Library Parts (High-Frequency Diode)

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. HBAT5400	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HBAT5400_20000301
2. HBAT5402	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HBAT5402_20000301
3. HBAT540B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HBAT540B_20000301
4. HBAT540C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HBAT540C_20000301
5. HSMS2700	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2700_20000301
6. HSMS2702	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2702_20000301
7. HSMS270B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS270B_20000301
8. HSMS270C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS270C_20000301
9. HSMS2800	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2800_20000301
10. HSMS2802	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2802_20000301
11. HSMS2803	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2803_20000301
12. HSMS2804	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2804_20000301
13. HSMS2805	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2805_20000301
14. HSMS2807	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2807_20000301
15. HSMS2808	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2808_20000301
16. HSMS280B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS280B_20000301
17. HSMS280C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS280C_20000301
18. HSMS280E	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS280E_20000301

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19. HSMS280F	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS280F_20000301
20. HSMS280K	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280K_20000301
21. HSMS280L	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280L_20000301
22. HSMS280M	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280M_20000301
23. HSMS280N	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280N_20000301
24. HSMS280P	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280P_20000301
25. HSMS280R	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS280R_20000301
26. HSMS2810	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2810_20000301
27. HSMS2812	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2812_20000301
28. HSMS2813	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2813_20000301
29. HSMS2814	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2814_20000301
30. HSMS2815	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2815_20000301
31. HSMS2817	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2817_20000301
32. HSMS2818	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2818_20000301
33. HSMS281B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS281B_20000301
34. HSMS281C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS281C_20000301
35. HSMS281E	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS281E_20000301
36. HSMS281F	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS281F_20000301
37. HSMS281K	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS281K_20000301
38. HSMS281L	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS281L_20000301
39. HSMS2820	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2820_20000301
40. HSMS2822	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2822_20000301
41. HSMS2823	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2823_20000301
42. HSMS2824	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2824_20000301
43. HSMS2825	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2825_20000301



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44. HSMS2827	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2827_20000301
45. HSMS2828	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2828_20000301
46. HSMS2829	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2829_20000301
47. HSMS282B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS282B_20000301
48. HSMS282C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS282C_20000301
49. HSMS282E	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS282E_20000301
50. HSMS282F	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS282F_20000301
51. HSMS282K	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282K_20000301
52. HSMS282L	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282L_20000301
53. HSMS282M	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282M_20000301
54. HSMS282N	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282N_20000301
55. HSMS282P	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282P_20000301
56. HSMS282R	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS282R_20000301
57. HSMS2850	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2850_20000301
58. HSMS2852	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2852_20000301
59. HSMS2855	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2855_20000301
60. HSMS285B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS285B_20000301
61. HSMS285C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS285C_20000301
62. HSMS285L	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS285L_20000301
63. HSMS285P	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS285P_20000301
64. HSMS2860	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2860_20000301
65. HSMS2862	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2862_20000301
66. HSMS2863	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2863_20000301
67. HSMS2864	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS2864_20000301
68. HSMS2865	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS2865_20000301

69. HSMS286B	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS286B_20000301
70. HSMS286C	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS286C_20000301
71. HSMS286E	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS286E_20000301
72. HSMS286F	HP	Diode	SOT323 Package 3-terminal	ND	ND	di_hp_HSMS286F_20000301
73. HSMS286K	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS286K_20000301
74. HSMS286L	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS286L_20000301
75. HSMS286P	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS286P_20000301
76. HSMS286R	HP	Diode	SOT363 Package 6-terminal	ND	ND	di_hp_HSMS286R_20000301
77. HSMS8101	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS8101_20000301
78. HSMS8202	HP	Diode	SOT23 Package 3-terminal	ND	ND	di_hp_HSMS8202_20000301
79. HSMS8205	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS8205_20000301
80. HSMS8207	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS8207_20000301
81. HSMS8209	HP	Diode	SOT143 Package 4-terminal	ND	ND	di_hp_HSMS8209_20000301

## Available Microwave Transistor Library Parts (chip BJTs -- no Layout)

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. AT41400	HP	BJT	ND	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typ)=8V, Ic(typ)=10mA, Hfe=150, Ft=10GHz	cb_hp_AT41400_19920721
2. AT42000	HP	BJT	ND	ND	Pdiss=600mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typ)=35mA, Hfe=150, Ft=10GHz	cb_hp_AT42000_19920721

## Available Microwave Transistor Library Parts (chip HEMTs-- no Layout; Packaged HEMTS --Layout)

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. ATF34143	HP	HEMT	SOT-343 Low cost surface mount small plastic package -4 terminal	ND	Pdiss=725mW, VDS(Max)=5.5V, VGS(Max)=-5V, VGD(Max)=-5V, Id(Max)=Idss(max)=145mA, VDS(typ)=4V, ID(typ)=60mA, Gm=230,	ph_hp_ATF34143_19990129
2. ATF36077	HP	HEMT	Low parasitic ceramic microstrip package (style 77) - 4 terminal	ND	Pdiss=180mW, VDS(Max)=3V, VGS(Max)=-3V, VGD(Max)=- 3.5V, Id(Max)=Idss(max)=45mA, VDS(typ)=1.5V, ID(typ)=10mA, Gm=55, Ft=10GHz	ph_hp_ATF36077_19940627
3. ATF36163	HP	HEMT	SOT-363 Low parasitic ceramic microstrip package -6 terminal	ND	Pdiss=180mW, VDS(Max)=3V, VGS(Max)=-3V, VGD(Max)=- 3.5V, Id(Max)=Idss(max)=40mA, VDS(typ)=1.5V, ID(typ)=10mA, Gm=55, Ft>18GHz	ph_hp_ATF36163_19951110

**Obsolete Microwave Transistor Library Parts (chip BJTs -- no Layout)**

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. AT00500	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=500, Ic(max)=50, Vce(max)=12, Ic(typical)=20, Vce(typical)=8, Ft=9, Hfe=150	cb_hp_AT00500_19900404
2. AT00500	HP	BJT	ND	bjt_gp	ND	cb_hp_AT00500_19910101
3. AT00500	embedded	BJT	ND	ND	ND	cb_hp_AT00500_19921101
4. AT01600	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=1000, Ic(max)=150, Vce(max)=12, Ic(typical)=35, Vce(typical)=8, Ft=8, Hfe=150	cb_hp_AT01600_19900404
5. AT01600	HP	BJT	ND	bjt_gp	ND	cb_hp_AT01600_19910101
6. AT01600	embedded	BJT	ND	ND	ND	cb_hp_AT01600_19921101
7. AT21400	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=250, Ic(max)=28, Vce(max)=10, Ic(typical)=14, Vce(typical)=8, Ft=10, Hfe=100	cb_hp_AT21400_19900404
8. AT41400	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=500, Ic(max)=60, Vce(max)=12, Ic(typical)=25, Vce(typical)=8, Ft=9, Hfe=150	cb_hp_AT41400_19900404
9. AT41400	HP	BJT	ND	bjt_gp	ND	cb_hp_AT41400_19910101
10. AT60100	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=80, Ic(max)=8, Vce(max)=12, Ic(typical)=3, Vce(typical)=8, Ft=9, Hfe=150	cb_hp_AT60100_19900406
11. AT60200	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=160, Ic(max)=16, Vce(max)=12, Ic(typical)=5, Vce(typical)=8, Ft=9, Hfe=150	cb_hp_AT60200_19900409
12. AT60500	HP	BJT	ND	eebjt1 NPN	Pdiss(max)=400, Ic(max)=40, Vce(max)=12, Ic(typical)=10, Vce(typical)=8, Ft=9, Hfe=150	cb_hp_AT60500_19900411
13. AT60500	HP	BJT	ND	bjt_gp	ND	cb_hp_AT60500_19910101
14. AT60500	embedded	BJT	ND	ND	ND	cb_hp_AT60500_19921101

### Obsolete Microwave Transistor Library Parts (chip GaAsFETs -- no Layout)

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. ATF10100	HP	FET	ND	curtice	ND	cf_hp_ATF10100_19911201
2. ATF10100	HP	FET	ND	eefet3 N-channel	Gate Width=250, Gate Length=0.3, Pdiss(max)=430, Vds(typical)=4, Idss=62.4, Vt=-1	cf_hp_ATF10100_19930609
3. ATF13100	HP	FET	ND	curtice	ND	cf_hp_ATF13100_19911201
4. ATF13100	HP	FET	ND	eefet3 N-channel	Gate Width=250, Gate Length=0.3, Pdiss(max)=225, Vds(typical)=4, Idss=56.48, Vt=-1.6	cf_hp_ATF13100_19930609
5. ATF21100	HP	FET	ND	eefet3 N-channel	Gate Width=750, Gate Length=0.3, Pdiss(max)=600, Vds(typical)=5, Idss=125.15, Vt=-1.4	cf_hp_ATF21100_19930609
6. ATF25100	HP	FET	ND	curtice	ND	cf_hp_ATF25100_19911201
7. ATF25100	HP	FET	ND	eefet3 N-channel	Gate Width=500, Gate Length=0.3, Pdiss(max)=450, Vds(typical)=5, Idss=53.03, Vt=-2.1	cf_hp_ATF25100_19930609
8. ATF26100	HP	FET	ND	curtice	ND	cf_hp_ATF26100_19911201
9. ATF26100	HP	FET	ND	eefet3 N-channel	Gate Width=250, Gate Length=0.3, Pdiss(max)=275, Vds(typical)=5, Idss=72.52, Vt=-2.7	cf_hp_ATF26100_19930609
10. ATF44100	HP	FET	ND	eefet3 N-channel	Gate Width=5000, Gate Length=0.5, Pdiss(max)=8300, Vds(typical)=9, Idss=1093.28, Vt=-4.5	cf_hp_ATF44100_19930730
11. ATF45100	HP	FET	ND	eefet3 N-channel	Gate Width=2500, Gate Length=0.5, Pdiss(max)=4000, Vds(typical)=9, Idss=645.97, Vt=-5.6	cf_hp_ATF45100_19930609
12. ATF46100	HP	FET	ND	eefet3 N-channel	Gate Width=1250, Gate Length=0.5, Pdiss(max)=2200, Vds(typical)=9, Idss=356.44, Vt=-5.1	cf_hp_ATF46100_19940317

### Available RF Transistor Library Parts (Packaged BJTs)

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. AT32032	HP	BJT	SOT-323 (SC-70) style Package 3-terminal	ND	Pdiss=200mW, Vce(Max)=5.5V, Ic(Max)=32mA, Vce(typical)=2.7V, Ic(Typical)=2mA, Hfe=150 Ft=10GHz	pb_hp_AT32032_19980529

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2. AT41485	HP	BJT	Style 85	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41485_19920721
3. AT41486	HP	BJT	Style 86	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41486_19920721
4. AT41586	HP	BJT	Style 86 plastic Package 4- terminal	ND	Pdiss=225mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=5V, Ic(Typical)=5mA, Hfe=150, Ft=10GHz	pb_hp_AT41586_19950125
5. AT32011	HP	BJT	SOT-143 AT Package style 11 Package 4- terminal	ND	Pdiss=200mW, Vce(Max)=5.5V, Ic(Max)=32mA, Vce(typical)=2.7V, Ic(Typical)=2mA, Hfe=150 Ft=10GHz	pb_hp_AT32011_19950105
6. AT42010	HP	BJT	Hermetic Gold- ceramic microstrip package NPN Pdiss=600mW	ND	Pdiss=600mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=10GHz	pb_hp_AT42010_19920721
7. AT31011	HP	BJT	SOT-143 style Package 4- terminal	ND	Pdiss=150mW, Vce(Max)=5.5V, Ic(Max)=16mA, Vce(typical)=2.7V, Ic(Typical)=1mA, Hfe=150 Ft=10GHz	pb_hp_AT31011_19940623
8. AT32033	HP	BJT	SOT-23 style Package 3- terminal	ND	Pdiss=200mW, Vce(Max)=5.5V, Ic(Max)=32mA, Vce(typical)=2.7V, Ic(Typical)=2mA, Hfe=150 Ft=10GHz	pb_hp_AT32033_19950105
9. AT41410	HP	BJT	Style 10	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41410_19920721
10. AT41411	HP	BJT	SOT-143 style Package 4- terminal	ND	Pdiss=225mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41411_19920721
11. AT64020	HP	BJT	Hermetic	ND	Pdiss=3W, Vce(Max)=20V, Ic(Max)=200mA,	pb_hp_AT64020_19920721

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					Vce(typical)=16V, Ic(Typical)=110mA, Hfe=50, Ft=10GHz	
12. AT32063	HP	BJT	SOT-363 style Package 6- terminal	ND	Pdiss=200mW, Vce(Max)=5.5V, Ic(Max)=32mA, Vce(typical)=2.7V, Ic(Typical)=5mA, Hfe=150 Ft=10GHz	pb_hp_AT32063_19961111
13. HBFP0420	HP	BJT	SOT-343 Package 3-terminal	ND	Pdiss=162mW, Vce(Max)=4.5V, Ic(Max)=36mA, Vce(typical)=2V, Ic(Typical)=5mA, Hfe=80, Ft=25GHz	pb_hp_HBFP0420_19980529
14. AT42070	HP	BJT	Hermetic Gold- ceramic microstrip package-4 terminal NPN Pdiss=600mW	ND	Pdiss=600mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=10GHz	pb_hp_AT42070_19920721
15. AT31033	HP	BJT	SOT-23 AT Package 3- terminal	ND	Pdiss=150mW, Vce(Max)=5.5V, Ic(Max)=16mA, Vce(typical)=2.7V, Ic(Typical)=1mA, Hfe=150 Ft=10GHz	pb_hp_AT31033_19940623
16. AT30511	HP	BJT	SOT-143 Package 4-terminal	ND	Pdiss=100mW, Vce(Max)=5.5V, Ic(Max)=8mA, Vce(typical)=2.7V, Ic(Typical)=5mA, Hfe(min)=70, Hfe(max)=300, Ft=10GHz	pb_hp_AT30511_19940623
17. AT41511	HP	BJT	SOT-143 AT Package style 11 Package 4- terminal	ND	Pdiss=225mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=5V, Ic(Typical)=5mA, Hfe=150 Ft=10GHz	pb_hp_AT41511_19950125
18. AT42035	HP	BJT	Cost effective ceramic microstrip package-4 terminal NPN Pdiss=600mW	ND	Pdiss=600mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=10GHz	pb_hp_AT42035_19920721
19. AT41470	HP	BJT	Style 70	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41470_19920721
20. HBFP0405	HP	BJT	SOT-343 Package 3-terminal	ND	Pdiss=54mW, Vce(Max)=4.5V, Ic(Max)=12mA, Vce(typical)=2V,	pb_hp_HBFP0405_19980529

					Ic(Typical)=2mA, Hfe=80, Ft=25GHz	
21. HBFP0450	n/a	BJT	ND	ND	ND	pb_hp_HBFP0450_19980529
22. AT41533	HP	BJT	SOT-23 Package 3-terminal	ND	Pdiss=225mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=5V, Ic(Typical)=5mA, Hfe=150, Ft=10GHz	pb_hp_AT41533_19950125
23. AT41435	HP	BJT	Style 35	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=60mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=10GHz	pb_hp_AT41435_19920721
24. AT30533	HP	BJT	SOT-23 Package 3-terminal	ND	Pdiss=100mW, Vce(Max)=5.5V, Ic(Max)=8mA, Vce(typical)=2.7V, Ic(Typical)=5mA, Hfe(min)=70, Hfe(max)=300, Ft=10GHz	pb_hp_AT30533_19940623
25. AT42085	HP	BJT	Low cost plastic package-4 terminal NPN Pdiss=500mW	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=10GHz	pb_hp_AT42085_19920721
26. AT42086	HP	BJT	SMT plastic package-4 terminal NPN Pdiss=500mW	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=10GHz	pb_hp_AT42086_19920721

**Obsolete RF Transistor Library Parts (Packaged BJTs)**



Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. AT00510	HP	BJT	NEC07,	ND	ND	pb_hp_AT00510_19921101
2. AT00511	HP	BJT	SOT143 Package 4- terminal	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT00511_19931202
3. AT00535	HP	BJT	35,	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT00535_19921101
4. AT00570	HP	BJT	70,	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT00570_19921101
5. AT01610	HP	BJT	07,	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT01610_19921101
6. AT01635	HP	BJT	35,	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT01635_19921101
7. AT01670	HP	BJT	70,	ND	Pdiss=230mW, Vce(Max)=12V, Ic(Max)=50mA, Vce(typical)=8V, Ic(Typical)=15mA, Hfe=150, Ft=7GHz	pb_hp_AT01670_19921101
8. AT60510	HP	BJT	07,	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=8GHz	pb_hp_AT60510_19921101
9. AT60535	HP	BJT	35,	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=8GHz	pb_hp_AT60535_19911003
10. AT60535	HP	BJT	AVNK35 Package 4- terminal	ND	Pdiss=500mW, Vce(Max)=12V, Ic(Max)=80mA, Vce(typical)=8V, Ic(Typical)=35mA, Hfe=150, Ft=8GHz	pb_hp_AT60535_19921101
11. AT60570	HP	BJT	70,	ND	Pdiss=400mW, Vce(Max)=12V, Ic(Max)=40mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=8GHz	pb_hp_AT60570_19921101
12. AT60585	HP	BJT	85,	ND	Pdiss=400mW, Vce(Max)=12V, Ic(Max)=40mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=8GHz	pb_hp_AT60585_19921101
13. AT60586	HP	BJT	86,	ND	Pdiss=400mW, Vce(Max)=12V, Ic(Max)=40mA, Vce(typical)=8V, Ic(Typical)=10mA, Hfe=150, Ft=8GHz	pb_hp_AT60586_19921101

**Obsolete RF Transistor Library Parts (Packaged GaAsFETs, no Layout)**

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. ATF13136	HP	FET	ATF36 Package 4-terminal	ND	Gw=250um, Gl=0.30um, Pdiss=225mW Vbr=7V, @Vds=3V: Idss(sim)=46.37mA, Vt(sim)=-1.4V	pf_hp_ATF13136_19931014
2. ATF13284	HP	FET	ATF84 Package 4-terminal	ND	Gw=250um, Gl=0.30um, Pdiss=225mW Vbr=7V, @Vds=3V: Idss(sim)=29.47mA, Vt(sim)=-1.44V	pf_hp_ATF13284_19931014

**Available S-Parameter Library Parts (HP, no Layout)**

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	DS Part Name
1. AT-30511	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-30511_1_19940623
2. AT-30511	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-30511_2_19940623
3. AT-30511	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-30511_3_19940410
4. AT-30511	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-30511_4_19940623
5. AT-30511	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-30511_5_19940410
6. AT-30533	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-30533_1_19940623
7. AT-30533	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-30533_2_19940623
8. AT-30533	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-30533_3_19940410
9. AT-30533	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-30533_4_19940623
10. AT-30533	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-30533_5_19940410
11. AT-31011	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-31011_1_19940623
12. AT-31011	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-31011_2_19940623
13. AT-31011	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-31011_3_19950306
14. AT-31011	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-31011_4_19940410
15. AT-31011	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-31011_5_19940623
16. AT-31011	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-31011_6_19940410
17. AT-31033	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-31033_1_19940623
18. AT-31033	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-31033_2_19940623

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19. AT-31033	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-31033_3_19940410
20. AT-31033	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-31033_4_19940623
21. AT-31033	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-31033_5_19940410
22. AT-31625	HP	Bjt	ND	ND	Vce=4.8V Ic=100mA	sp_hp_AT-31625_10_19960805
23. AT-31625	HP	Bjt	ND	ND	Vce=4.8V Ic=150mA	sp_hp_AT-31625_11_19960805
24. AT-31625	HP	Bjt	ND	ND	Vce=4.8V Ic=200mA	sp_hp_AT-31625_12_19960805
25. AT-31625	HP	Bjt	ND	ND	Vce=6V Ic=50mA	sp_hp_AT-31625_13_19960805
26. AT-31625	HP	Bjt	ND	ND	Vce=6V Ic=100mA	sp_hp_AT-31625_14_19960805
27. AT-31625	HP	Bjt	ND	ND	Vce=6V Ic=150mA	sp_hp_AT-31625_15_19960805
28. AT-31625	HP	Bjt	ND	ND	Vce=6V Ic=200mA	sp_hp_AT-31625_16_19960805
29. AT-31625	HP	Bjt	ND	ND	Vce=3V Ic=50mA	sp_hp_AT-31625_1_19960805
30. AT-31625	HP	Bjt	ND	ND	Vce=3V Ic=100mA	sp_hp_AT-31625_2_19960805
31. AT-31625	HP	Bjt	ND	ND	Vce=3V Ic=150mA	sp_hp_AT-31625_3_19960805
32. AT-31625	HP	Bjt	ND	ND	Vce=3V Ic=200mA	sp_hp_AT-31625_4_19960805
33. AT-31625	HP	Bjt	ND	ND	Vce=3.6V Ic=50mA	sp_hp_AT-31625_5_19960805
34. AT-31625	HP	Bjt	ND	ND	Vce=3.6V Ic=100mA	sp_hp_AT-31625_6_19960805
35. AT-31625	HP	Bjt	ND	ND	Vce=3.6V Ic=150mA	sp_hp_AT-31625_7_19960805
36. AT-31625	HP	Bjt	ND	ND	Vce=3.6V Ic=200mA	sp_hp_AT-31625_8_19960805
37. AT-31625	HP	Bjt	ND	ND	Vce=4.8V Ic=50mA	sp_hp_AT-31625_9_19960805
38. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=20mA	sp_hp_AT-32011_10_19950105
39. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-32011_11_19950105
40. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-32011_12_19950105
41. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-32011_13_19950105
42. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=7.5mA	sp_hp_AT-32011_14_19950105
43. AT-	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-

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32011						32011_15_19950105
44. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=15mA	sp_hp_AT-32011_16_19950105
45. AT-32011	HP	Bjt	ND	ND	Vce=5V Ic=20mA	sp_hp_AT-32011_17_19950105
46. AT-32011	HP	Bjt	ND	ND	Vce=0.3V Ic=1mA	sp_hp_AT-32011_18_19950105
47. AT-32011	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-32011_1_19950105
48. AT-32011	HP	Bjt	ND	ND	Vce=1V Ic=2mA	sp_hp_AT-32011_2_19950105
49. AT-32011	HP	Bjt	ND	ND	Vce=1V Ic=5mA	sp_hp_AT-32011_3_19950105
50. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-32011_4_19950105
51. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-32011_5_19950105
52. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-32011_6_19950105
53. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=7.5mA	sp_hp_AT-32011_7_19950105
54. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-32011_8_19950105
55. AT-32011	HP	Bjt	ND	ND	Vce=2.7V Ic=15mA	sp_hp_AT-32011_9_19950105
56. AT-32032	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-32032_1_19980529
57. AT-32032	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-32032_2_19980529
58. AT-32032	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-32032_3_19980529
59. AT-32032	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-32032_4_19980529
60. AT-32032	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-32032_5_19980529
61. AT-32032	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-32032_6_19980529
62. AT-32032	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-32032_7_19980529
63. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=20mA	sp_hp_AT-32033_10_19950105
64. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=1mA	sp_hp_AT-32033_11_19950105
65. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-32033_12_19950105
66. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-32033_13_19950105
67. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=7.5mA	sp_hp_AT-32033_14_19950105
68. AT-	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-

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32033						32033_15_19950105
69. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=15mA	sp_hp_AT-32033_16_19950105
70. AT-32033	HP	Bjt	ND	ND	Vce=5V Ic=20mA	sp_hp_AT-32033_17_19950105
71. AT-32033	HP	Bjt	ND	ND	Vce=0.3V Ic=1mA	sp_hp_AT-32033_18_19950105
72. AT-32033	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-32033_1_19950105
73. AT-32033	HP	Bjt	ND	ND	Vce=1V Ic=2mA	sp_hp_AT-32033_2_19950105
74. AT-32033	HP	Bjt	ND	ND	Vce=1V Ic=5mA	sp_hp_AT-32033_3_19950105
75. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=1mA	sp_hp_AT-32033_4_19950105
76. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-32033_5_19950105
77. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-32033_6_19950105
78. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=7.5mA	sp_hp_AT-32033_7_19950105
79. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-32033_8_19950105
80. AT-32033	HP	Bjt	ND	ND	Vce=2.7V Ic=15mA	sp_hp_AT-32033_9_19950105
81. AT-32063	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-32063_1_19961111
82. AT-32063	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-32063_2_19961111
83. AT-32063	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-32063_3_19961111
84. AT-32063	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-32063_4_19960819
85. AT-32063	HP	Bjt	ND	ND	Vce=2.7V Ic=20mA	sp_hp_AT-32063_5_19961111
86. AT-32063	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-32063_6_19961111
87. AT-32063	HP	Bjt	ND	ND	Vce=5V Ic=20mA	sp_hp_AT-32063_7_19961111
88. AT-33225	HP	Bjt	ND	ND	Vce=6V Ic=150mA	sp_hp_AT-33225_10_19960805
89. AT-33225	HP	Bjt	ND	ND	Vce=3.6V Ic=50mA	sp_hp_AT-33225_1_19960805
90. AT-33225	HP	Bjt	ND	ND	Vce=3.6V Ic=100mA	sp_hp_AT-33225_2_19960805
91. AT-33225	HP	Bjt	ND	ND	Vce=3.6V Ic=150mA	sp_hp_AT-33225_3_19960805
92. AT-33225	HP	Bjt	ND	ND	Vce=3.6V Ic=200mA	sp_hp_AT-33225_4_19960805
93. AT-	HP	Bjt	ND	ND	Vce=4.8V Ic=50mA	sp_hp_AT-

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33225						33225_5_19960805
94. AT-33225	HP	Bjt	ND	ND	Vce=4.8V Ic=100mA	sp_hp_AT-33225_6_19960805
95. AT-33225	HP	Bjt	ND	ND	Vce=4.8V Ic=150mA	sp_hp_AT-33225_7_19960805
96. AT-33225	HP	Bjt	ND	ND	Vce=6.0V Ic=50mA	sp_hp_AT-33225_8_19960805
97. AT-33225	HP	Bjt	ND	ND	Vce=6V Ic=100mA	sp_hp_AT-33225_9_19960805
98. AT-36408	HP	Bjt	ND	ND	Vce=6V Ic=150mA	sp_hp_AT-36408_10_19960805
99. AT-36408	HP	Bjt	ND	ND	Vce=3.6V Ic=50mA	sp_hp_AT-36408_1_19960805
100. AT-36408	HP	Bjt	ND	ND	Vce=3.6V Ic=100mA	sp_hp_AT-36408_2_19960805
101. AT-36408	HP	Bjt	ND	ND	Vce=3.6V Ic=150mA	sp_hp_AT-36408_3_19960805
102. AT-36408	HP	Bjt	ND	ND	Vce=3.6V Ic=200mA	sp_hp_AT-36408_4_19960805
103. AT-36408	HP	Bjt	ND	ND	Vce=4.8V Ic=100mA	sp_hp_AT-36408_5_19960805
104. AT-36408	HP	Bjt	ND	ND	Vce=4.8V Ic=150mA	sp_hp_AT-36408_6_19960805
105. AT-36408	HP	Bjt	ND	ND	Vce=4.8V Ic=200mA	sp_hp_AT-36408_7_19960805
106. AT-36408	HP	Bjt	ND	ND	Vce=6V Ic=50mA	sp_hp_AT-36408_8_19960805
107. AT-36408	HP	Bjt	ND	ND	Vce=6V Ic=100mA	sp_hp_AT-36408_9_19960805
108. AT-38043	HP	Bjt	ND	ND	Vce=1.2V Ic=50mA	sp_hp_AT-38043_1_19980106
109. AT-38043	HP	Bjt	ND	ND	Vce=3V Ic=50mA	sp_hp_AT-38043_2_19980106
110. AT-38043	HP	Bjt	ND	ND	Vce=3.6V Ic=50mA	sp_hp_AT-38043_3_19980106
111. AT-38043	HP	Bjt	ND	ND	Vce=4.8V Ic=50mA	sp_hp_AT-38043_4_19980106
112. AT-38043	HP	Bjt	ND	ND	Vce=6V Ic=50mA	sp_hp_AT-38043_5_19980106
113. AT-38086	HP	Bjt	ND	ND	Vce=3.6V Ic=30mA	sp_hp_AT-38086_1_19960805
114. AT-38086	HP	Bjt	ND	ND	Vce=3.6V Ic=80mA	sp_hp_AT-38086_2_19960805
115. AT-38086	HP	Bjt	ND	ND	Vce=4.8V Ic=50mA	sp_hp_AT-38086_3_19960805
116. AT-38086	HP	Bjt	ND	ND	Vce=6V Ic=50mA	sp_hp_AT-38086_4_19960805
117. AT-41400	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41400_1_19920721

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118. AT-41400	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41400_2_19920721
119. AT-41410	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41410_1_19920721
120. AT-41410	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41410_2_19920721
121. AT-41411	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41411_1_19920721
122. AT-41411	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41411_2_19920721
123. AT-41435	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41435_1_19920721
124. AT-41435	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41435_2_19920721
125. AT-41470	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41470_1_19920721
126. AT-41470	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41470_2_19920721
127. AT-41485	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41485_1_19920721
128. AT-41485	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41485_2_19920721
129. AT-41486	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41486_1_19920721
130. AT-41486	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41486_2_19920721
131. AT-41511	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41511_10_19920803
132. AT-41511	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41511_11_19950125
133. AT-41511	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-41511_1_19950125
134. AT-41511	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-41511_2_19950125
135. AT-41511	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-41511_3_19940328
136. AT-41511	HP	Bjt	ND	ND	Vce=2.7V Ic=25mA	sp_hp_AT-41511_4_19950125
137. AT-41511	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-41511_5_19950125
138. AT-41511	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-41511_6_19950125
139. AT-41511	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-41511_7_19950125
140. AT-41511	HP	Bjt	ND	ND	Vce=5V Ic=25mA	sp_hp_AT-41511_8_19950125
141. AT-41511	HP	Bjt	ND	ND	Vce=8V Ic=5mA	sp_hp_AT-41511_9_19920803
142. AT-41532	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_AT-41532_1_19980529

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143. AT-41532	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-41532_2_19980529
144. AT-41532	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-41532_3_19980529
145. AT-41532	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-41532_4_19980529
146. AT-41532	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-41532_5_19980529
147. AT-41532	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-41532_6_19980529
148. AT-41532	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-41532_7_19980529
149. AT-41533	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41533_10_19950125
150. AT-41533	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41533_11_19950125
151. AT-41533	HP	Bjt	ND	ND	Vce=2.7V Ic=2mA	sp_hp_AT-41533_1_19950125
152. AT-41533	HP	Bjt	ND	ND	Vce=2.7V Ic=5mA	sp_hp_AT-41533_2_19950125
153. AT-41533	HP	Bjt	ND	ND	Vce=2.7V Ic=10mA	sp_hp_AT-41533_3_19950125
154. AT-41533	HP	Bjt	ND	ND	Vce=2.7V Ic=25mA	sp_hp_AT-41533_4_19950125
155. AT-41533	HP	Bjt	ND	ND	Vce=5V Ic=2mA	sp_hp_AT-41533_5_19950125
156. AT-41533	HP	Bjt	ND	ND	Vce=5V Ic=5mA	sp_hp_AT-41533_6_19950125
157. AT-41533	HP	Bjt	ND	ND	Vce=5V Ic=10mA	sp_hp_AT-41533_7_19950125
158. AT-41533	HP	Bjt	ND	ND	Vce=5V Ic=25mA	sp_hp_AT-41533_8_19950125
159. AT-41533	HP	Bjt	ND	ND	Vce=8V Ic=5mA	sp_hp_AT-41533_9_19950125
160. AT-41586	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-41586_1_19920803
161. AT-41586	HP	Bjt	ND	ND	Vce=8V Ic=25mA	sp_hp_AT-41586_2_19920803
162. AT-42000	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42000_1_19920721
163. AT-42000	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42000_2_19920721
164. AT-42010	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42010_1_19920721
165. AT-42010	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42010_2_19920721
166. AT-42035	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42035_1_19920721
167. AT-42035	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42035_2_19920721



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168. AT-42070	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42070_1_19920721
169. AT-42070	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42070_2_19920721
170. AT-42085	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42085_1_19920721
171. AT-42085	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42085_2_19920721
172. AT-42086	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-42086_1_19920721
173. AT-42086	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-42086_2_19920721
174. AT-64020	HP	Bjt	ND	ND	Vce=16V Ic=110mA	sp_hp_AT-64020_1_19920721
175. AT-64023	HP	Bjt	ND	ND	Vce=10V Ic=70mA	sp_hp_AT-64023_1_19940628
176. AT-64023	HP	Bjt	ND	ND	Vce=10V Ic=110mA	sp_hp_AT-64023_2_19940628
177. AT-64023	HP	Bjt	ND	ND	Vce=10V Ic=150mA	sp_hp_AT-64023_3_19940628
178. AT-64023	HP	Bjt	ND	ND	Vce=16V Ic=110mA	sp_hp_AT-64023_4_19920721
179. ATF-10135	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10135_19920722
180. ATF-10136	HP	Fet	ND	ND	Vds=1V Id=10mA	sp_hp_ATF-10136_1_19940628
181. ATF-10136	HP	Fet	ND	ND	Vds=1V Id=5mA	sp_hp_ATF-10136_2_19940629
182. ATF-10136	HP	Fet	ND	ND	Vds=1V Id=2mA	sp_hp_ATF-10136_3_19940629
183. ATF-10136	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10136_4_19920722
184. ATF-10236	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10236_19940627
185. ATF-10736	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10736_1_19920722
186. ATF-10736	HP	Fet	ND	ND	Vds=4V Id=70mA	sp_hp_ATF-10736_2_19920722
187. ATF-13336	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13336_19920722
188. ATF-13736	HP	Fet	ND	ND	Vds=4V Id=40mA	sp_hp_ATF-13736_19920722
189. ATF-13736	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13736_1_19920722
190. ATF-13736	HP	Fet	ND	ND	Vds=4V Id=40mA	sp_hp_ATF-13736_2_19920722
191. ATF-13786	HP	Fet	ND	ND	Vds=3V Id=40mA	sp_hp_ATF-13786_19920722
192. ATF-21170	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-21170_1_19920722

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193. ATF-21170	HP	Fet	ND	ND	Vds=5V Id=80mA	sp_hp_ATF-21170_2_19920722
194. ATF-21186	HP	Fet	ND	ND	Vds=2V Id=10mA	sp_hp_ATF-21186_1_19980130
195. ATF-21186	HP	Fet	ND	ND	Vds=2V Id=15mA	sp_hp_ATF-21186_2_19980130
196. ATF-21186	HP	Fet	ND	ND	Vds=2V Id=20mA	sp_hp_ATF-21186_3_19980130
197. ATF-21186	HP	Fet	ND	ND	Vds=3V Id=70mA	sp_hp_ATF-21186_4_19980130
198. ATF-26836	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26836_1_19920722
199. ATF-26836	HP	Fet	ND	ND	Vds=5V Id=30mA	sp_hp_ATF-26836_2_19920722
200. ATF-26884	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26884_1_19920722
201. ATF-26884	HP	Fet	ND	ND	Vds=5V Id=30mA	sp_hp_ATF-26884_2_19920722
202. ATF-34143	HP	phemt	ND	ND	Vds=2V Id=20mA	sp_hp_ATF-34143_1_19990129
203. ATF-34143	HP	phemt	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-34143_2_19990129
204. ATF-34143	HP	phemt	ND	ND	Vds=3V Id=40mA	sp_hp_ATF-34143_3_19990129
205. ATF-34143	HP	phemt	ND	ND	Vds=4V Id=40mA	sp_hp_ATF-34143_4_19990129
206. ATF-34143	HP	phemt	ND	ND	Vds=4V Id=60mA	sp_hp_ATF-34143_5_19990129
207. ATF-36077	HP	Fet	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-36077_19940627
208. ATF-36163	HP	Fet	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-36163_1_19951110
209. ATF-36163	HP	Fet	ND	ND	Vds=1.5V Id=15mA	sp_hp_ATF-36163_2_19951110
210. ATF-36163	HP	Fet	ND	ND	Vds=1.5V Id=20mA	sp_hp_ATF-36163_3_19951110
211. ATF-36163	HP	Fet	ND	ND	Vds=2V Id=10mA	sp_hp_ATF-36163_4_19951110
212. ATF-36163	HP	Fet	ND	ND	Vds=2V Id=15mA	sp_hp_ATF-36163_5_19951110
213. ATF-36163	HP	Fet	ND	ND	Vds=2V Id=20mA	sp_hp_ATF-36163_6_19951110
214. ATF-36163	HP	Fet	ND	ND	Vds=0V Id=0mA	sp_hp_ATF-36163_7_19951110
215. ATF-36163	HP	Fet	ND	ND	Vds=0V Vgs=-1.5V	sp_hp_ATF-36163_8_19951110
216. ATF-36163	HP	Fet	ND	ND	Vds=2V Vgs=-1.5V	sp_hp_ATF-36163_9_19951110
217. ATF-44101	HP	Fet	ND	ND	Vds=9V Id=500mA	sp_hp_ATF-44101_19881109

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218. ATF-45101	HP	Fet	ND	ND	Vds=9V Id=250mA	sp_hp_ATF-45101_19881109
219. ATF-46101	HP	Fet	ND	ND	Vds=9V Id=125mA	sp_hp_ATF-46101_19881109
220. HBFP-0405	HP	Bjt	ND	ND	Vce=2V Ic=2mA	sp_hp_HBFP-0405_1_19980529
221. HBFP-0405	HP	Bjt	ND	ND	Vce=2V Ic=5mA	sp_hp_HBFP-0405_2_19980529
222. HBFP-0420	HP	Bjt	ND	ND	Vce=2V Ic=5mA	sp_hp_HBFP-0420_1_19980529
223. HBFP-0420	HP	Bjt	ND	ND	Vce=2V Ic=20mA	sp_hp_HBFP-0420_2_19980529
224. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=2mA	sp_hp_HBFP-0450_10_19980904
225. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=5mA	sp_hp_HBFP-0450_11_19980904
226. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=10mA	sp_hp_HBFP-0450_12_19980904
227. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=15mA	sp_hp_HBFP-0450_13_19980904
228. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=20mA	sp_hp_HBFP-0450_14_19980904
229. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=35mA	sp_hp_HBFP-0450_15_19980904
230. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=50mA	sp_hp_HBFP-0450_16_19980904
231. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=70mA	sp_hp_HBFP-0450_17_19980904
232. HBFP-0450	HP	Bjt	ND	ND	Vce=1V Ic=100mA	sp_hp_HBFP-0450_18_19980904
233. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=1mA	sp_hp_HBFP-0450_19_19980904
234. HBFP-0450	HP	Bjt	ND	ND	Vce=0.5V Ic=1mA	sp_hp_HBFP-0450_1_19980904
235. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=2mA	sp_hp_HBFP-0450_20_19980904

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236. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=5mA	sp_hp_HBFP-0450_21_19980904
237. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=10mA	sp_hp_HBFP-0450_22_19980904
238. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=15mA	sp_hp_HBFP-0450_23_19980904
239. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=20mA	sp_hp_HBFP-0450_24_19980904
240. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=35mA	sp_hp_HBFP-0450_25_19980904
241. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=50mA	sp_hp_HBFP-0450_26_19980904
242. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=70mA	sp_hp_HBFP-0450_27_19980904
243. HBFP-0450	HP	Bjt	ND	ND	Vce=2V Ic=100mA	sp_hp_HBFP-0450_28_19980904
244. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=1mA	sp_hp_HBFP-0450_29_19980904
245. HBFP-0450	HP	Bjt	ND	ND	Vce=0.5V Ic=2mA	sp_hp_HBFP-0450_2_19980904
246. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=2mA	sp_hp_HBFP-0450_30_19980904
247. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=5mA	sp_hp_HBFP-0450_31_19980904
248. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=10mA	sp_hp_HBFP-0450_32_19980904
249. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=15mA	sp_hp_HBFP-0450_33_19980904
250. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=20mA	sp_hp_HBFP-0450_34_19980904
251. HBFP-0450	HP	Bjt	ND	ND	Vce=3V Ic=35mA	sp_hp_HBFP-0450_35_19980904
252. HBFP-0450	HP	Bjt	ND	ND	Vce=0.5V Ic=5mA	sp_hp_HBFP-0450_3_19980904
253. HBFP-	HP	Bjt	ND	ND	Vce=3V Ic=50mA	sp_hp_HBFP-0450_36_19980904

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0450						
254. HBFP- 0450	HP	Bjt	ND	ND	Vce=3V Ic=70mA	sp_hp_HBFP- 0450_37_19980904
255. HBFP- 0450	HP	Bjt	ND	ND	Vce=3V Ic=100mA	sp_hp_HBFP- 0450_38_19980904
256. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=1mA	sp_hp_HBFP- 0450_39_19980904
257. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=2mA	sp_hp_HBFP- 0450_40_19980904
258. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=5mA	sp_hp_HBFP- 0450_41_19980904
259. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=10mA	sp_hp_HBFP- 0450_42_19980904
260. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=15mA	sp_hp_HBFP- 0450_43_19980904
261. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=20mA	sp_hp_HBFP- 0450_44_19980904
262. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=35mA	sp_hp_HBFP- 0450_45_19980904
263. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=50mA	sp_hp_HBFP- 0450_46_19980904
264. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=70mA	sp_hp_HBFP- 0450_47_19980904
265. HBFP- 0450	HP	Bjt	ND	ND	Vce=4V Ic=100mA	sp_hp_HBFP- 0450_48_19980904
266. HBFP- 0450	HP	Bjt	ND	ND	Vce=0.5V Ic=10mA	sp_hp_HBFP- 0450_4_19980904
267. HBFP- 0450	HP	Bjt	ND	ND	Vce=0.5V Ic=15mA	sp_hp_HBFP- 0450_5_19980904
268. HBFP- 0450	HP	Bjt	ND	ND	Vce=0.5V Ic=20mA	sp_hp_HBFP- 0450_6_19980904
269. HBFP- 0450	HP	Bjt	ND	ND	Vce=0.5V Ic=35mA	sp_hp_HBFP- 0450_7_19980904
270. HBFP- 0450	HP	Bjt	ND	ND	Vce=0.5V Ic=50mA	sp_hp_HBFP- 0450_8_19980904

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271. HBFP- 0450	HP	Bjt	ND	ND	Vce=1V Ic=1mA	sp_hp_HBFP- 0450_9_19980904
272. HMMC- 1002	HP	Attenuator	ND	ND	Maximum setting --- V1=-4V, V2=0V DC-50GHz Variable Attenuator	sp_hp_HMMC- 1002_1_19970212
273. HMMC- 1002	HP	Attenuator	ND	ND	Minimum setting --- V1=0V, V2=- 4V DC-50GHz Variable Attenuator	sp_hp_HMMC- 1002_2_19970212
274. HMMC- 1015	HP	Attenuator	ND	ND	Maximum setting --- V1=-4V, V2=0V DC-50GHz Variable Attenuator	sp_hp_HMMC- 1015_1_19970225
275. HMMC- 1015	HP	Attenuator	ND	ND	Minimum setting --- V1=0V, V2=- 4V DC-50GHz Variable Attenuator	sp_hp_HMMC- 1015_2_19970225
276. HMMC- 2027	HP	GaAs MMIC switch	ND	ND	--- Vsel_high=0V, Vsel_low=-10V DC-26.5GHz SPDT GaAs MMIC Switch	sp_hp_HMMC- 2027_19970206
277. HMMC- 5021	HP	Amplifier	ND	ND	Vdd=7V Id=150mA 2-22GHz Amplifier	sp_hp_HMMC- 5021_19970203
278. HMMC- 5022	HP	Amplifier	ND	ND	Vdd=7V Id=150mA 2-22GHz Amplifier	sp_hp_HMMC- 5022_19970203
279. HMMC- 5023	HP	Amplifier	ND	ND	Vdd=5V Idd=22mA 20-26GHz LNA	sp_hp_HMMC- 5023_19970224
280. HMMC- 5025	HP	Amplifier	ND	ND	Vdd=5V Idd=75mA 2-50GHz Amplifier	sp_hp_HMMC- 5025_19970207
281. HMMC- 5026	HP	Amplifier	ND	ND	Vdd=7V Id=150mA 2-26.5GHz Amplifier	sp_hp_HMMC- 5026_19970203
282. HMMC- 5027	HP	Amplifier	ND	ND	Vdd=8V Id=250mA 2-26.5GHz Amplifier	sp_hp_HMMC- 5027_19970207
283. HMMC- 5032	HP	Amplifier	ND	ND	Vdd=4.5V Idd=250mA +22dBm 17.7 - 32GHz compact transmitter amplifier with integrated output power detector	sp_hp_HMMC- 5032_19980310
284. HMMC- 5033	HP	Amplifier	ND	ND	Vd1=3.5V Id1=250mA; Vd2=5V, Id2=450mA --- +26dBm 17.7- 32GHz high-gain transmitter amplifier with integrated output power detector	sp_hp_HMMC- 5033_19980310
285. HMMC- 5038	HP	Amplifier	ND	ND	Vdd=3V; Idd=150mA ---- 37 - 40GHz LNA	sp_hp_HMMC- 5038_19970224
286. HMMC- 5040	HP	Amplifier	ND	ND	Vdd=4.5V; Idd=300mA --- 20- 44GHz amplifier	sp_hp_HMMC- 5040_19970207
287. HMMC-	HP	Amplifier	ND	ND	Vcc=6V; Rout=100Ohm; Lin/out=175pH ---- DC-20GHz HBT	sp_hp_HMMC- 5200_19970207

5200					Amplifier	
288. HMMC- 5618	HP	Amplifier	ND	ND	Vdd=5V --- 6-20GHz Amplifier	sp_hp_HMMC- 5618_19970207
289. HMMC- 5620	HP	Amplifier	ND	ND	Vdd=5V; Idd=100mA --- 6-20GHz Amplifier	sp_hp_HMMC- 5620_19970207
290. HPMX- 3002	HP	Prescalers	ND	ND	(0.5-16GHz GaAs HBT) Vcc1=4.5V, Vcc2=6V, Vcontrol=2.2V	sp_hp_HPMX- 3002_1_19940107
291. HPMX- 3002	HP	Prescalers	ND	ND	(DC-16GHz GaAs HBT) Vcc1=4.5V, Vcc2=6V, Vcontrol=2.0V	sp_hp_HPMX- 3002_2_19940107
292. HPMX- 3002	HP	Prescalers	ND	ND	(DC-16GHz GaAs HBT) Vcc1=4.5V, Vcc2=6V, Vcontrol=1.6V	sp_hp_HPMX- 3002_3_19940107
293. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	If=1mA	sp_hp_HPND- 4028_1_19971003
294. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	If=5mA	sp_hp_HPND- 4028_2_19971003
295. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	If=10mA	sp_hp_HPND- 4028_3_19971003
296. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	Vr=0 V	sp_hp_HPND- 4028_4_19971003
297. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	Vr=10 V	sp_hp_HPND- 4028_5_19971003
298. HPND- 4028	HP	Pin (beam lead) diode	ND	ND	Vr=30 V	sp_hp_HPND- 4028_6_19971003
299. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	If=1 mA	sp_hp_HPND- 4038_1_19971003
300. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	If=5 mA	sp_hp_HPND- 4038_2_19971003
301. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	If=10 mA	sp_hp_HPND- 4038_3_19971003
302. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	Vr=0 V	sp_hp_HPND- 4038_4_19971003
303. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	Vr=10 V	sp_hp_HPND- 4038_5_19971003
304. HPND- 4038	HP	Pin (beam lead) diode	ND	ND	Vr=30 V	sp_hp_HPND- 4038_6_19971003

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305. HSCH-0005	HP	Diode	ND	ND	Zero bias Chottky diode chip	sp_hp_HSCH-0005_19940607
306. HSCH-5310	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5310_1_19940607
307. HSCH-5310	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5310_2_19940607
308. HSCH-5312	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5312_1_19940607
309. HSCH-5312	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5312_2_19940607
310. HSCH-5314	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5314_1_19940607
311. HSCH-5314	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5314_2_19940607
312. HSCH-5316	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5316_1_19940607
313. HSCH-5316	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5316_2_19940607
314. HSCH-5318	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5318_1_19940607
315. HSCH-5318	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5318_2_19940607
316. HSCH-5320	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5320_1_19940607
317. HSCH-5320	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5320_2_19940607
318. HSCH-5330	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5330_1_19940607
319. HSCH-5330	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5330_2_19940607
320. HSCH-5332	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5332_1_19940607
321. HSCH-5332	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH-5332_2_19940607
322. HSCH-	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH-5334_1_19940607



5334						
323. HSCH- 5334	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH- 5334_2_19940607
324. HSCH- 5336	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH- 5336_1_19940607
325. HSCH- 5336	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH- 5336_2_19940607
326. HSCH- 5338	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH- 5338_1_19940607
327. HSCH- 5338	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH- 5338_2_19940607
328. HSCH- 5340	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSCH- 5340_1_19940607
329. HSCH- 5340	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSCH- 5340_2_19940607
330. HSMS- 2850	HP	Diode	ND	ND	Zero bias Schottky Diode	sp_hp_HSMS- 2850_19940607
331. HSMS- 8101	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSMS- 8101_1_19940607
332. HSMS- 8101	HP	Diode	ND	ND	20microamp external Bias	sp_hp_HSMS- 8101_2_19940607
333. HSMS- 8202	HP	Diode	ND	ND	1mA self-bias	sp_hp_HSMS- 8202_1_19940607
334. HSMS- 8202	HP	Diode	ND	ND	20microamp external bias	sp_hp_HSMS- 8202_2_19940607
335. IAM- 91563	HP	Mixer	ND	ND	Cascode type down-converting mixer -- IF port reflection at 3V	sp_hp_IAM- 91563_1_19960312
336. IAM- 91563	HP	Mixer	ND	ND	Cascode type down-converting mixer --LO port reflection at 3V	sp_hp_IAM- 91563_2_19970225
337. IAM- 91563	HP	Mixer	ND	ND	Cascode type down-converting mixer --RF port reflection at 3V	sp_hp_IAM- 91563_3_19970225
338. INA- 01170	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA- 01170_19920722
339. INA- 02100	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA- 02100_19940623
340. INA- 02170	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA- 02170_19920722

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341. INA-02184	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA-02184_19920722
342. INA-02186	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA-02186_19920722
343. INA-03100	HP	Amplifier	ND	ND	Id=12mA	sp_hp_INA-03100_19940623
344. INA-03170	HP	Amplifier	ND	ND	Id=12mA	sp_hp_INA-03170_19920722
345. INA-03184	HP	Amplifier	ND	ND	Id=10mA	sp_hp_INA-03184_19920722
346. INA-10386	HP	Amplifier	ND	ND	Vd=6V	sp_hp_INA-10386_19940623
347. INA-12063	HP	Amplifier	ND	ND	Vd=3V , Id=1.5mA	sp_hp_INA-12063_1_19961007
348. INA-12063	HP	Amplifier	ND	ND	Vd=3V , Id=2.5mA	sp_hp_INA-12063_2_19961007
349. INA-12063	HP	Amplifier	ND	ND	Vd=3V , Id=4.5mA	sp_hp_INA-12063_3_19961007
350. INA-12063	HP	Amplifier	ND	ND	Vd=3V , Id=8mA	sp_hp_INA-12063_4_19961007
351. INA-30311	HP	Amplifier	ND	ND	Vd=3V	sp_hp_INA-30311_19950105
352. INA-31063	HP	Amplifier	ND	ND	Vd=3V , Id=11mA	sp_hp_INA-31063_19980416
353. INA-32063	HP	Amplifier	ND	ND	Vd=3V , Id=20mA	sp_hp_INA-32063_19980416
354. INA-34063	HP	Amplifier	ND	ND	Vd=3V , Id=30mA	sp_hp_INA-34063_19980416
355. INA-50311	HP	Amplifier	ND	ND	Vd=5V	sp_hp_INA-50311_19941219
356. INA-51063	HP	Amplifier	ND	ND	Vd=5V	sp_hp_INA-51063_19960320
357. INA-52063	HP	Amplifier	ND	ND	Vd=5V	sp_hp_INA-52063_19950315
358. INA-54063	HP	Amplifier	ND	ND	Vd=5V Id=30mA	sp_hp_INA-54063_19961007
359. IVA-05208	HP	VGA	ND	ND	at 6V(full gain), Vgc=0V --- 1.5GHz variable gain control amplifiers (Gilbert cell amp with active attenuator)	sp_hp_IVA-05208_1_19930811
360. IVA-05208	HP	VGA	ND	ND	at 6V, Vgc=3.4V --- 1.5GHz variable gain control amplifiers (Gilbert cell amp with active attenuator)	sp_hp_IVA-05208_2_19930811
361. IVA-05208	HP	VGA	ND	ND	at 6V, Vgc=4V --- 1.5GHz variable gain control amplifiers (Gilbert cell amp with active attenuator)	sp_hp_IVA-05208_3_19930811
362. IVA-05208	HP	VGA	ND	ND	at 6V, Vgc=5V --- 1.5GHz variable gain control amplifiers (Gilbert cell amp with active attenuator)	sp_hp_IVA-05208_4_19930811
363.	HP	Amplifier	ND	ND	Vd=10V	sp_hp_MGA-

MGA-64135						64135_19920722
364. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=0mA (LNA bypassed)	sp_hp_MGA-72543_1_19990127
365. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=5mA	sp_hp_MGA-72543_2_19990127
366. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=10mA	sp_hp_MGA-72543_3_19990127
367. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=20mA	sp_hp_MGA-72543_4_19990127
368. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=40mA	sp_hp_MGA-72543_5_19990127
369. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=3V, Id=60mA	sp_hp_MGA-72543_6_19990127
370. MGA-72543	HP	Switched LNA (Amplifier)	ND	ND	Vd=0V, Id=0mA (LNA bypassed)	sp_hp_MGA-72543_7_19990127
371. MGA-81563	HP	Amplifier	ND	ND	Vd=3V	sp_hp_MGA-81563_19960312
372. MGA-82563	HP	Amplifier	ND	ND	Vd=3V	sp_hp_MGA-82563_19960312
373. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=18nH	sp_hp_MGA-83563_1_19971015
374. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=8.2nH	sp_hp_MGA-83563_2_19971015
375. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=4.7nH	sp_hp_MGA-83563_3_19971015
376. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=2.2nH	sp_hp_MGA-83563_4_19971015
377. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=1.2nH	sp_hp_MGA-83563_5_19971015
378. MGA-83563	HP	Amplifier	ND	ND	Vd=3V L=0nH	sp_hp_MGA-83563_6_19971015
379. MGA-85563	HP	Amplifier	ND	ND	Vd=3V	sp_hp_MGA-85563_19970529
380. MGA-86563	HP	Amplifier	ND	ND	Vd=5V	sp_hp_MGA-86563_19941219

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381. MGA- 86576	HP	Amplifier	ND	ND	Vd=5V	sp_hp_MGA- 86576_1_19940627
382. MGA- 86576	HP	Amplifier	ND	ND	Vd=7V	sp_hp_MGA- 86576_2_19940701
383. MGA- 87563	HP	Amplifier	ND	ND	Vd=3V	sp_hp_MGA- 87563_1_19941221
384. MGA- 87563	HP	Amplifier	ND	ND	Vd=5V	sp_hp_MGA- 87563_2_19941221
385. MSA- 0104	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0104_19920722
386. MSA- 0135	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0135_19920722
387. MSA- 0136	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0136_19920722
388. MSA- 0170	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0170_19900501
389. MSA- 0185	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0185_19920722
390. MSA- 0186	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA- 0186_19920722
391. MSA- 0204	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0204_19920722
392. MSA- 0235	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0235_19920722
393. MSA- 0236	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0236_19920722
394. MSA- 0270	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0270_19920722
395. MSA- 0285	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0285_19920722
396. MSA- 0286	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA- 0286_19920722
397. MSA- 0304	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA- 0304_19920722
398.	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-

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MSA-0311						0311_19920722
399. MSA-0335	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0335_19920722
400. MSA-0336	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0336_19920722
401. MSA-0370	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0370_19920722
402. MSA-0385	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0385_19920722
403. MSA-0386	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0386_19920722
404. MSA-0404	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0404_19920722
405. MSA-0420	HP	Amplifier	ND	ND	Id=90mA	sp_hp_MSA-0420_19920722
406. MSA-0435	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0435_19920722
407. MSA-0436	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0436_19920722
408. MSA-0470	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0470_19920722
409. MSA-0485	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0485_19920722
410. MSA-0486	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0486_19920722
411. MSA-0504	HP	Amplifier	ND	ND	Id=80mA	sp_hp_MSA-0504_19920722
412. MSA-0505	HP	Amplifier	ND	ND	Id=80mA	sp_hp_MSA-0505_19920722
413. MSA-0520	HP	Amplifier	ND	ND	Id=165mA	sp_hp_MSA-0520_19920722
414. MSA-0611	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0611_19920722
415. MSA-0635	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0635_19920722

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416. MSA-0636	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0636_19920722
417. MSA-0670	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0670_19920722
418. MSA-0685	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0685_19920722
419. MSA-0686	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0686_19920722
420. MSA-0711	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0711_19920727
421. MSA-0735	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0735_19920727
422. MSA-0736	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0736_19920727
423. MSA-0770	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0770_19920727
424. MSA-0785	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0785_19920727
425. MSA-0786	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0786_19920727
426. MSA-0835	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0835_19920727
427. MSA-0836	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0836_19920727
428. MSA-0870	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0870_19920727
429. MSA-0885	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0885_19920727
430. MSA-0885	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0885_19920727
431. MSA-0886	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0886_19920727
432. MSA-0910	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0910_19920727
433.	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-

MSA-0986						0986_19920727
434. MSA-1104	HP	Amplifier	ND	ND	Id=60mA	sp_hp_MSA-1104_19920727
435. MSA-1105	HP	Amplifier	ND	ND	Id=60mA	sp_hp_MSA-1105_19920727
436. MSA-1110	HP	Amplifier	ND	ND	Id=60mA	sp_hp_MSA-1110_19920727
437. MSA-1120	HP	Amplifier	ND	ND	Id=60mA	sp_hp_MSA-1120_19920727
438. MSA-2011	HP	Amplifier	ND	ND	Id=32mA	sp_hp_MSA-2011_19940627
439. MSA-2035	HP	Amplifier	ND	ND	Id=32mA	sp_hp_MSA-2035_19940627
440. MSA-2085	HP	Amplifier	ND	ND	Id=32mA	sp_hp_MSA-2085_19940627
441. MSA-2086	HP	Amplifier	ND	ND	Id=32mA	sp_hp_MSA-2086_19940627
442. MSA-2111	HP	Amplifier	ND	ND	Id=29mA	sp_hp_MSA-2111_19900503
443. MSA-3111	HP	Amplifier	ND	ND	Id=29mA	sp_hp_MSA-3111_19940623
444. MSA-3135	HP	Amplifier	ND	ND	Id=29mA	sp_hp_MSA-3135_19940627
445. MSA-3185	HP	Amplifier	ND	ND	Id=29mA	sp_hp_MSA-3185_19940701
446. MSA-3186	HP	Amplifier	ND	ND	Id=29mA	sp_hp_MSA-3186_19940627
447. MSA-9970	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-9970_19880330

**Obsolete S-Parameter Library Parts (HP, no Layout)**

Part Number	Vendor	Part Type	Package	Model	Electrical Parameters	ADS Part Name
1. AT-00535	HP	Bjt	ND	ND	Vce=8V Ic=5mA	sp_hp_AT-00535_1_19921201
2. AT-00535	HP	Bjt	ND	ND	Vce=8V Ic=20mA	sp_hp_AT-00535_2_19921201

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3. AT-00572	HP	Bjt	ND	ND	Vce=8V Ic=5mA	sp_hp_AT-00572_1_19921201
4. AT-00572	HP	Bjt	ND	ND	Vce=8V Ic=20mA	sp_hp_AT-00572_2_19921201
5. AT-00600	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-00600_1_19921201
6. AT-00600	HP	Bjt	ND	ND	Vce=8V Ic=60mA	sp_hp_AT-00600_2_19921201
7. AT-01635	HP	Bjt	ND	ND	Vce=8V Ic=60mA	sp_hp_AT-01635_1_19921201
8. AT-01635	HP	Bjt	ND	ND	Vce=8V Ic=35mA	sp_hp_AT-01635_2_19921201
9. AT-21400	HP	Bjt	ND	ND	Vce=8V Ic=14mA	sp_hp_AT-21400_19921201
10. AT-60100	HP	Bjt	ND	ND	Vce=8V Ic=0.5mA	sp_hp_AT-60100_1_19921201
11. AT-60100	HP	Bjt	ND	ND	Vce=8V Ic=3mA	sp_hp_AT-60100_2_19921201
12. AT-60111	HP	Bjt	ND	ND	Vce=3V Ic=0.4mA	sp_hp_AT-60111_1_19921201
13. AT-60111	HP	Bjt	ND	ND	Vce=6V Ic=2.5mA	sp_hp_AT-60111_2_19921201
14. AT-60200	HP	Bjt	ND	ND	Vce=8V Ic=1mA	sp_hp_AT-60200_1_19921201
15. AT-60200	HP	Bjt	ND	ND	Vce=8V Ic=5mA	sp_hp_AT-60200_2_19921201
16. AT-60211	HP	Bjt	ND	ND	Vce=3V Ic=0.8mA	sp_hp_AT-60211_1_19921201
17. AT-60211	HP	Bjt	ND	ND	Vce=6V Ic=5mA	sp_hp_AT-60211_2_19921201
18. AT-60510	HP	Bjt	ND	ND	Vce=8V Ic=2mA	sp_hp_AT-60510_1_19921201
19. AT-60510	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-60510_2_19921201
20. AT-60570	HP	Bjt	ND	ND	Vce=8V Ic=2mA	sp_hp_AT-60570_1_19921201
21. AT-60570	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-60570_2_19921201
22. AT-60585	HP	Bjt	ND	ND	Vce=8V Ic=2mA	sp_hp_AT-60585_1_19921201
23. AT-60585	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-60585_2_19921201
24. AT-60586	HP	Bjt	ND	ND	Vce=8V Ic=2mA	sp_hp_AT-60586_1_19921201
25. AT-60586	HP	Bjt	ND	ND	Vce=8V Ic=10mA	sp_hp_AT-60586_2_19921201
26. ATF-10100	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10100_1_19921201
27. ATF-10100	HP	Fet	ND	ND	Vds=4V Id=70mA	sp_hp_ATF-10100_2_19921201



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28. ATF-10170	HP	Fet	ND	ND	Vds=2V Id=25mA	sp_hp_ATF-10170_1_19921201
29. ATF-10170	HP	Fet	ND	ND	Vds=4V Id=70mA	sp_hp_ATF-10170_2_19921201
30. ATF-13036	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13036_19921201
31. ATF-13100	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13100_19921201
32. ATF-13135	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13135_19921201
33. ATF-13136	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13136_19921201
34. ATF-13170	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13170_19921201
35. ATF-13284	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13284_1_19921201
36. ATF-13284	HP	Fet	ND	ND	Vds=4V Id=40mA	sp_hp_ATF-13284_2_19921201
37. ATF-13484	HP	Fet	ND	ND	Vds=2.5V Id=20mA	sp_hp_ATF-13484_1_19921201
38. ATF-13484	HP	Fet	ND	ND	Vds=4V Id=40mA	sp_hp_ATF-13484_2_19921201
39. ATF-21100	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-21100_1_19921201
40. ATF-21100	HP	Fet	ND	ND	Vds=5V Id=80mA	sp_hp_ATF-21100_2_19921201
41. ATF-25100	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-25100_1_19921201
42. ATF-25100	HP	Fet	ND	ND	Vds=5V Id=50mA	sp_hp_ATF-25100_2_19921201
43. ATF-25170	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-25170_19921201
44. ATF-25570	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-25570_1_19921201
45. ATF-25570	HP	Fet	ND	ND	Vds=5V Id=50mA	sp_hp_ATF-25570_2_19921201
46. ATF-257335	HP	Fet	ND	ND	Vds=5V Id=50mA	sp_hp_ATF-257335_19921201
47. ATF-25735	HP	Fet	ND	ND	Vds=3V Id=20mA	sp_hp_ATF-25735_19921201
48. ATF-26100	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26100_1_19921201
49. ATF-26100	HP	Fet	ND	ND	Vds=5V Id=30mA	sp_hp_ATF-26100_2_19921201
50. ATF-26150	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26150_19921201
51. ATF-26350	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26350_19921201
52. ATF-26550	HP	Fet	ND	ND	Vds=3V Id=10mA	sp_hp_ATF-26550_1_19921201

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53. ATF-26550	HP	Fet	ND	ND	Vds=5V Id=30mA	sp_hp_ATF-26550_2_19921201
54. ATF-35076	HP	Hemt	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-35076_1_19921201
55. ATF-35076	HP	Hemt	ND	ND	Vds=1.5V Id=20mA	sp_hp_ATF-35076_2_19921201
56. ATF-35176	HP	Hemt	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-35176_19921201
57. ATF-35376	HP	Hemt	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-35376_19921201
58. ATF-35576	HP	Hemt	ND	ND	Vds=1.5V Id=10mA	sp_hp_ATF-35576_1_19921201
59. ATF-35576	HP	Hemt	ND	ND	Vds=1.5V Id=20mA	sp_hp_ATF-35576_2_19921201
60. ATF-44100	HP	Fet	ND	ND	Vds=9V Id=500mA	sp_hp_ATF-44100_19921201
61. ATF-45171	HP	Fet	ND	ND	Vds=9V Id=250mA	sp_hp_ATF-45171_19921201
62. ATF-46100	HP	Fet	ND	ND	Vds=9V Id=125mA	sp_hp_ATF-46100_19921201
63. ATF-46171	HP	Fet	ND	ND	Vds=9V Id=125mA	sp_hp_ATF-46171_19921201
64. HMMC-1001	HP	Attenuator	ND	ND	Minimum setting	sp_hp_HMMC-1001_1_19921201
65. HMMC-1001	HP	Attenuator	ND	ND	5dB setting	sp_hp_HMMC-1001_2_19921201
66. HMMC-1001	HP	Attenuator	ND	ND	10dB setting	sp_hp_HMMC-1001_3_19921201
67. HMMC-1001	HP	Attenuator	ND	ND	15dB setting	sp_hp_HMMC-1001_4_19921201
68. HMMC-1001	HP	Attenuator	ND	ND	20dB setting	sp_hp_HMMC-1001_5_19921201
69. HMMC-1001	HP	Attenuator	ND	ND	25dB setting	sp_hp_HMMC-1001_6_19921201
70. HMMC-1001	HP	Attenuator	ND	ND	Maximum setting	sp_hp_HMMC-1001_7_19921201
71. HMMC-5008	HP	Amplifier	ND	ND	Vdd=5V Idd=150mA	sp_hp_HMMC-5008_19921201
72. HMMC-5009	HP	Amplifier	ND	ND	Vd1=Vd2=4.5V Vd3=Vd4=7.0V Id1+Id2=180mA Vg1=Vg2 Id3+Id4=400mA Vg3=Vg4	sp_hp_HMMC-5009_19921201
73. HSCH-3486	HP	Diode	ND	ND	Zero bias	sp_hp_HSCH-3486_19921201

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74. HSMS-0005	HP	Diode	ND	ND	Zero bias	sp_hp_HSMS-0005_19921201
75. INA-01100	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA-01100_19921201
76. INA-02100	HP	Amplifier	ND	ND	Id=35mA	sp_hp_INA-02100_19921201
77. MGA-61000	HP	Amplifier	ND	ND	Vd=5V Id=80mA	sp_hp_MGA-61000_19921201
78. MGA-61100	HP	Amplifier	ND	ND	Vd=5V Id=80mA	sp_hp_MGA-61100_19921201
79. MGA-62100	HP	Amplifier	ND	ND	Vd=8V Id=65mA	sp_hp_MGA-62100_19921201
80. MGA-63100	HP	Amplifier	ND	ND	Vd=10V Id=140mA	sp_hp_MGA-63100_19921201
81. MGA-65100	HP	Amplifier	ND	ND	Vds=10V Id=158mA	sp_hp_MGA-65100_19921201
82. MGA-66100	HP	Amplifier	ND	ND	Vd=8V Id=200mA	sp_hp_MGA-66100_19921201
83. MGS-70008	HP	SPDT switch	ND	ND	Vc=-5V (off)	sp_hp_MGS-70008_1_19921201
84. MGS-70008	HP	SPDT switch	ND	ND	Vc=-5V (on)	sp_hp_MGS-70008_2_19921201
85. MGS-70018	HP	SPDT switch	ND	ND	Vc=-5V (off)	sp_hp_MGS-70018_1_19921201
86. MGS-70018	HP	SPDT switch	ND	ND	Vc=-5V (on)	sp_hp_MGS-70018_2_19921201
87. MGS-71008	HP	SPDT switch	ND	ND	Vc=-5V (off)	sp_hp_MGS-71008_1_19921201
88. MGS-71008	HP	SPDT switch	ND	ND	Vc=-5V (on)	sp_hp_MGS-71008_2_19921201
89. MGS-71018	HP	SPDT switch	ND	ND	Vc=-5V (off)	sp_hp_MGS-71018_1_19921201
90. MGS-71018	HP	SPDT switch	ND	ND	Vc=-5V (on)	sp_hp_MGS-71018_2_19921201
91. MSA-0100	HP	Amplifier	ND	ND	Id=17mA	sp_hp_MSA-0100_19921201
92. MSA-0200	HP	Amplifier	ND	ND	Id=25mA	sp_hp_MSA-0200_19921201
93. MSA-0300	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0300_19921201
94. MSA-0400	HP	Amplifier	ND	ND	Id=50mA	sp_hp_MSA-0400_1_19921201
95. MSA-0500	HP	Amplifier	ND	ND	Id=165mA	sp_hp_MSA-0500_19921201
96. MSA-0600	HP	Amplifier	ND	ND	Id=16mA	sp_hp_MSA-0600_19921201
97. MSA-0700	HP	Amplifier	ND	ND	Id=22mA	sp_hp_MSA-0700_19921201
98. MSA-0800	HP	Amplifier	ND	ND	Id=36mA	sp_hp_MSA-0800_19921201

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99. MSA-0900	HP	Amplifier	ND	ND	Id=35mA	sp_hp_MSA-0900_19921201
100. MSA-1000	HP	Amplifier	ND	ND	Id=325mA	sp_hp_MSA-1000_19921201
101. MSA-1023	HP	Amplifier	ND	ND	Id=325mA	sp_hp_MSA-1023_19921201
102. MSA-1100	HP	Amplifier	ND	ND	Id=60mA	sp_hp_MSA-1100_19921201