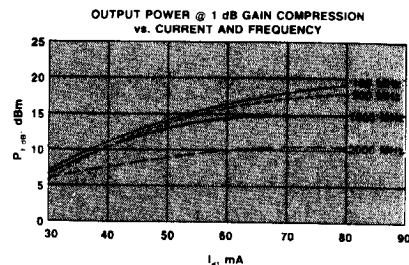
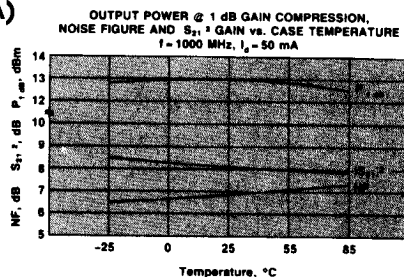
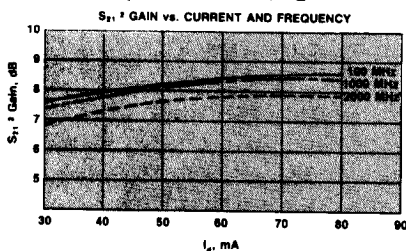


performance curves

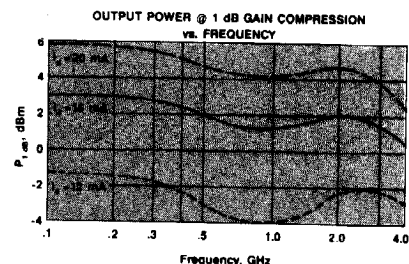
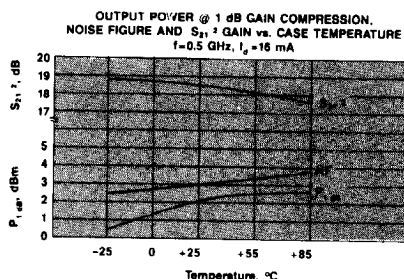
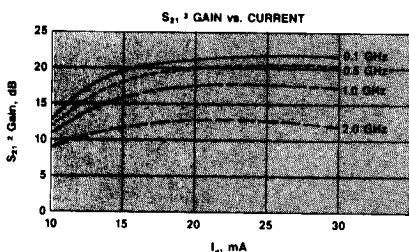
Mini-Circuits

MAR-4 ($T_A = 25^\circ\text{C}$, $I_d = 50\text{ mA}$)



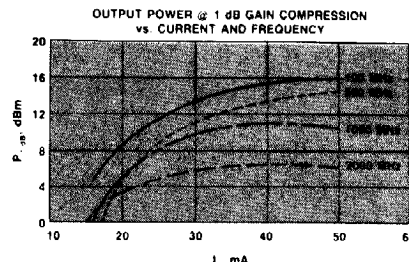
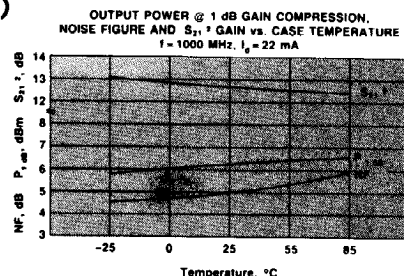
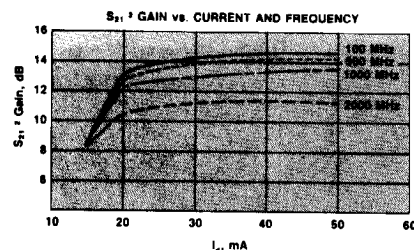
Freq. MHz	S_{11} (Input Return Loss)			S_{21} (Power Gain)		S_{12} (Isolation Out-In)			S_{22} (Output Return Loss)		
	dB	Mag	Ang	dB	Ang	dB	Mag	Ang	dB	Mag	Ang
100	-14.42	0.19	177	8.2	174	-15.92	0.16	0	-20.00	0.10	-14
500	-14.89	0.18	169	8.2	156	-15.92	0.16	1	-17.72	0.13	-54
1000	-15.39	0.17	159	8.1	135	-15.92	0.16	3	-14.89	0.18	-94
1500	-15.39	0.17	157	8.0	112	-15.39	0.17	4	-12.40	0.24	-121
2000	-14.42	0.19	151	7.7	90	-14.42	0.19	3	-11.06	0.28	-145
2500	-12.40	0.24	159	7.6	69	-13.98	0.20	-1	-9.37	0.34	-165
3000	-10.17	0.31	151	6.9	46	-13.15	0.22	-6	-9.12	0.35	176
3500	-8.18	0.39	139	6.0	27	-12.77	0.23	-11	-8.64	0.37	160
4000	-6.74	0.46	126	4.9	8	-12.04	0.25	-23	-8.40	0.38	147

MAR-6 ($T_A = 25^\circ\text{C}$, $I_d = 16\text{ mA}$)



Freq. GHz	S_{11} (Input Return Loss)			S_{21} (Power Gain)			S_{12} (Isolation Out-In)			S_{22} (Output Return Loss)		
	dB	Mag	Ang	dB	Mag	Ang	dB	Mag	Ang	dB	Mag	Ang
0.1	-27.96	.04	171	20.1	10.09	171	-22.5	.075	5	-27.96	.04	-30
0.5	-26.02	.05	-105	18.7	8.57	138	-21.3	.086	21	-20.00	.10	-104
1.0	-17.72	.13	-118	16.4	6.57	107	-18.8	.115	28	-17.08	.14	-150
1.5	-13.56	.21	-140	14.1	5.06	84	-17.1	.140	28	-16.48	.15	180
2.0	-10.75	.29	-163	12.0	3.98	65	-15.8	.163	26	-15.92	.16	157
2.5	-9.37	.34	-176	10.3	3.26	55	-15.2	.174	28	-15.92	.16	150
3.0	-7.74	.41	169	8.7	2.71	42	-14.8	.181	25	-16.48	.15	143
3.5	-6.74	.46	157	7.2	2.31	30	-14.2	.194	22	-17.72	.13	144
4.0	-6.20	.49	146	6.1	2.01	18	-13.8	.203	20	-20.00	.10	156

MAR-7 ($T_A = 25^\circ\text{C}$, $I_d = 22\text{ mA}$)



Freq. MHz	S_{11} (Input Return Loss)			S_{21} (Power Gain)		S_{12} (Isolation Out-In)			S_{22} (Output Return Loss)		
	dB	Mag	Ang	dB	Ang	dB	Mag	Ang	dB	Mag	Ang
100	-26.02	0.05	169	13.5	173	-19.17	0.11	1	-17.08	0.14	-7
500	-30.46	0.03	133	13.1	150	-18.42	0.12	6	-17.72	0.13	-41
1000	-40.00	0.01	58	12.5	122	-17.72	0.13	10	-19.17	0.11	-94
1500	-24.44	0.06	-113	11.8	95	-16.48	0.15	10	-17.72	0.13	-148
2000	-16.48	0.15	-144	10.5	70	-15.39	0.17	7	-15.39	0.17	174
2500	-11.37	0.27	-165	9.6	48	-14.89	0.18	1	-14.42	0.19	154
3000	-8.64	0.37	169	8.1	27	-13.98	0.20	-6	-14.89	0.18	144
3500	-6.94	0.45	150	6.5	10	-14.42	0.19	-11	-15.39	0.17	144
4000	-5.98	0.51	134	5.0	-4	-14.42	0.19	-15	-15.39	0.17	152