IXYS RF

IXZ210N50L & IXZ2210N50L
RF Power MOSFET

N-Channel Enhancement Mode Linear 175MHz RF MOSFET
Low Capacitance Z-MOS$_{TM}$ MOSFET Process
Optimized for Linear Operation
Ideal for Class AB & C, Broadcast & Communications Applications

V_{DSS} = 500 V
I_{D25} = 10 A

150V (operating)
300 & 550 Watts
175MHz

Note: All data is per the IXZ210N50L single ended device unless otherwise noted.

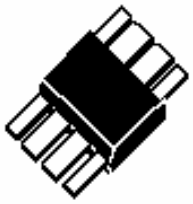
Symbol	Test Conditions	Maximum Ratings	
V_{DSS}	T_J = 25°C to 150°C	500	V
V_{DGR}	T_J = 25°C to 150°C; R_{GS} = 1 MΩ	500	V
V_{GS}	Continuous	±20	V
V_{GSM}	Transient	±30	V
I_{D25}	T_c = 25°C	10	A
I_{DM}	T_c = 25°C, pulse width limited by T_{JM}	60	A
I_{AR}	T_c = 25°C	16	A
E_{AR}	T_c = 25°C	TBD	mJ
dv/dt	$I_S \le I_{DM}$, di/dt ≤ 100A/µs, $V_{DD} \le V_{DSS}$, $T_j \le 150°C$, R_G = 0.2Ω	5	V/ns
	I_S = 0	>200	V/ns

		IXZ210N50L	IXZ2210N50L	
P_{DC}		470	940	W
P_{DHS}	T_c = 25°C, Derate 6.0W/°C above 25°C	235	470	W
P_{DAMB}	T_c = 25°C	10	10	W
R_{thJC}		0.32	0.16	C/W
R_{thJHS}		0.57	0.29	C/W

		min.	typ.	max.	
V_{DSS}	V_{GS} = 0 V, I_D = 4 ma	500			V
$V_{GS(th)}$	$V_{DS} = V_{GS}$, I_D = 250µA	3.5	4.95	6.5	V
I_{GSS}	V_{GS} = ±20 V_{DC}, V_{DS} = 0			±100	nA
I_{DSS}	V_{DS} = 0.8V_{DSS} V_{GS}=0	T_J = 25C T_J =125C		50 1	µA mA
$R_{DS(on)}$	V_{GS} = 20 V, I_D = 0.5I_{D25} Pulse test, t ≤ 300µS, duty cycle d ≤ 2%		1.0		Ω
g_{fs}	V_{DS} = 50 V, I_D = 0.5I_{D25}, pulse test		3.8		S
T_J		-55		+175	°C
T_{JM}				+175	°C
T_{stg}		-55		+ 175	°C
T_L	1.6mm(0.063 in) from case for 10 s		300		°C
Weight			4		g

IXZ210N50L

Pout - 300 Watts CW
Gain - 14dB @ 175MHz



IXZ2210N50L

Pout - 550 Watts CW
Gain - 14dB @ 175MHz

Features

- Isolated Substrate
  - high isolation voltage (>2500V)
  - excellent thermal transfer
  - Increased temperature and power cycling capability
- IXYS RF Low Capacitance Z-MOS^{TM} Process
- Very low insertion inductance (<2nH)
- No beryllium oxide (BeO) or other hazardous materials

Advantages

- High Performance RF Package
- Easy to mount—no insulators needed

(1) Thermal specifications are for the package, not per transistor

PRELIMINARY

Symbol	Test Conditions	Characteristic Values (T_J = 25°C unless otherwise specified) min.	typ.	max.	
C_{iss}		560	622	690	pF
C_{oss}	V_{GS} = 0 V, V_{DS} = 0.8 $V_{DSS(MAX)}$, f = 1 MHz	50	77	150	pF
C_{rss}		10	12	13	pF
C_{stray}	Back Metal to any Pin		21		pF
$T_{d(on)}$			4		ns
T_{on}	V_{GS} = 15 V, V_{DS} = 0.8 V_{DSS}		3		ns
$T_{d(off)}$	I_D = 0.5 I_{DM} R_G = 1 Ω (External)		4		ns
T_{off}			5		ns

VHF COMMUNICATIONS		min.	typ.	max.	
Gps	VDD= 50V, Pout=200W, f=175MHz	**13**		16	db
Drain Efficiency	VDD= 50V, Pout=200W, f=175MHz	50		60	%
Load Mismatch	VDD= 150V, Pout=300W, f=175MHz			TBD	

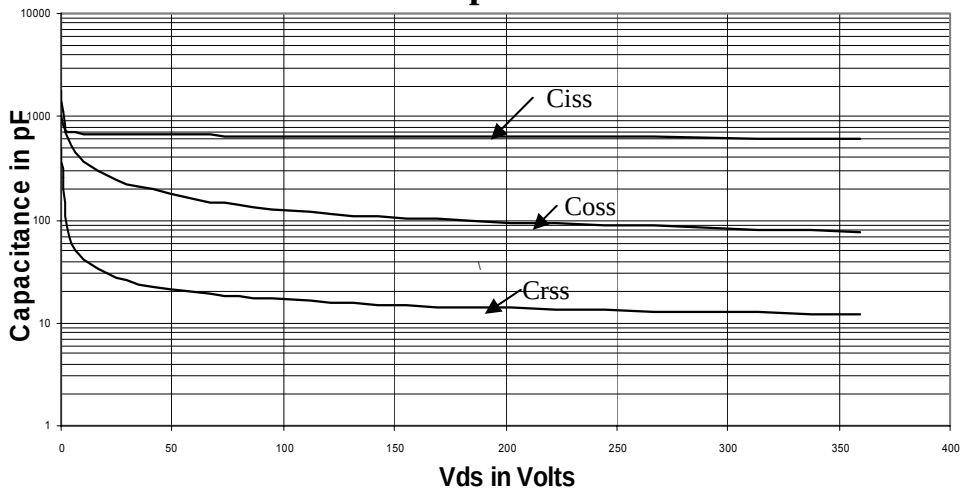
3T MRI		min.	typ.	max.	
Gps(1)	VDD=150V, P_{OUT}=475W, F=128MHz	**12**	13		db
Drain Efficiency	VDD= 50V, Pout=200W, f=175MHz	60	65		%

Zin= 0.59-J0.90
Zout= 5.86+J9.34

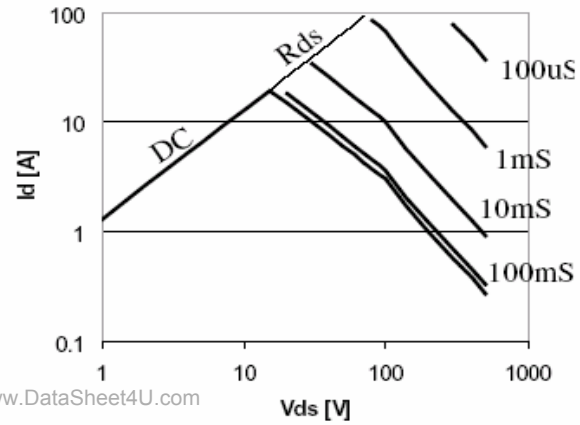
(1) - As measured under pulsed conditions (5 ms, 5%) with a gated Bias in Class AB, at P1dB.

PRELIMINARY

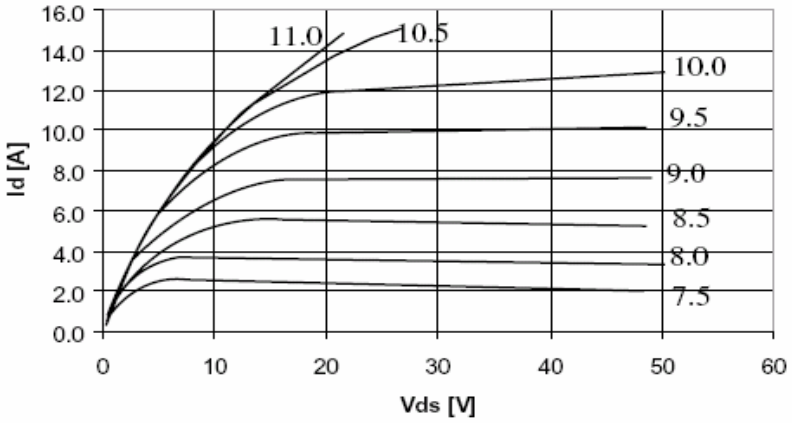
IXZ210N50L Capacitance verses Vds



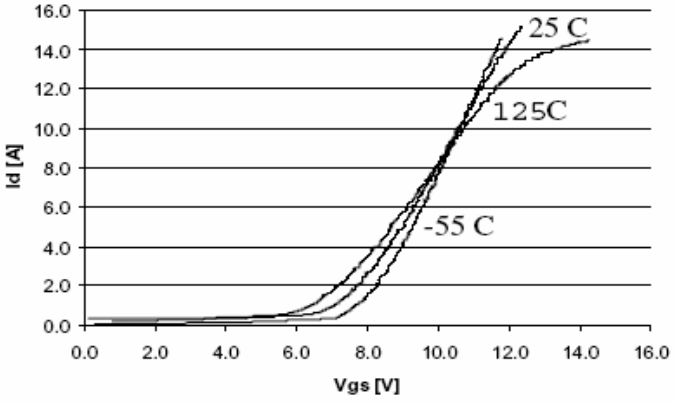
IXZ210N50L
Safe Operating Area



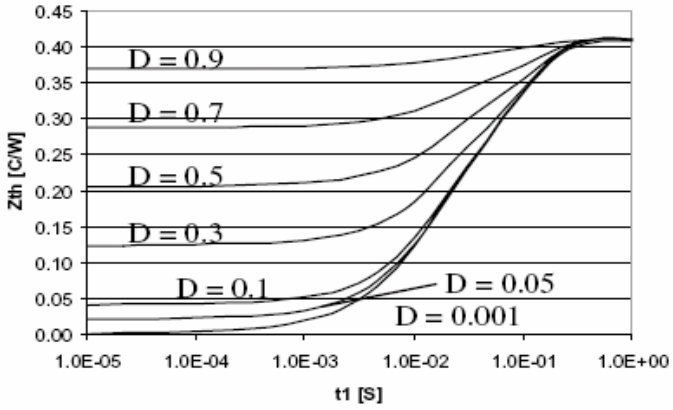
IXZ210N50L
Id vs Vds Curves



IXZ210N50L
Id vs Temp



IXZ210N50L
Thermal Response



PRELIMINARY

S-PARMATERS for Ids = 200mA and Vds = 100V

F MHz	mag S11	ang S11	mag S12	ang S12	mag S21	ang S21	mag S22	ang S22
2.00	1.00	-61.49	0.01	72.80	64.02	152.19	0.88	-51.42
2.56	0.95	-74.73	0.01	50.41	54.88	136.18	0.78	-61.85
3.12	0.92	-85.18	0.01	36.03	46.48	125.23	0.70	-69.85
3.68	0.90	-94.18	0.02	33.42	39.80	117.56	0.64	-76.52
4.24	0.89	-101.51	0.01	24.74	34.43	111.83	0.59	-81.83
4.80	0.88	-107.76	0.02	23.38	30.24	107.62	0.56	-86.25
5.36	0.88	-113.39	0.01	18.24	26.95	104.21	0.53	-90.12
5.92	0.87	-118.05	0.02	21.02	24.14	101.58	0.50	-93.86
6.48	0.87	-122.38	0.02	20.15	21.89	99.12	0.48	-96.91
7.04	0.87	-125.89	0.01	8.21	20.03	97.24	0.47	-99.89
7.60	0.87	-129.15	0.02	11.90	18.44	95.40	0.46	-102.23
8.16	0.87	-132.06	0.02	5.83	17.06	93.95	0.45	-104.53
8.72	0.88	-134.68	0.02	9.67	15.88	92.60	0.45	-106.30
9.28	0.88	-136.96	0.02	3.87	14.88	91.37	0.44	-107.93
9.84	0.88	-139.10	0.01	11.87	13.96	90.58	0.43	-109.34
10.40	0.88	-141.24	0.01	2.91	13.13	89.43	0.43	-110.69
10.96	0.88	-142.85	0.01	5.48	12.44	88.35	0.43	-112.27
11.52	0.88	-144.45	0.01	3.66	11.77	87.69	0.43	-113.80
12.08	0.88	-145.98	0.01	-0.44	11.15	86.75	0.43	-114.55
12.64	0.88	-147.31	0.01	-1.43	10.63	85.86	0.43	-115.60
13.20	0.89	-148.50	0.01	4.33	10.16	85.17	0.43	-116.56
13.76	0.89	-149.72	0.02	7.20	9.71	84.54	0.43	-117.37
14.32	0.89	-150.84	0.01	3.37	9.29	83.87	0.43	-118.56
14.88	0.89	-151.71	0.01	6.52	8.94	83.32	0.44	-118.83
15.44	0.89	-152.76	0.01	6.34	8.58	82.74	0.44	-119.56
16.00	0.89	-152.79	0.01	4.79	8.57	82.70	0.44	-119.64
16.56	0.89	-153.60	0.01	-2.91	8.26	82.15	0.44	-120.22
17.12	0.89	-154.31	0.01	4.60	7.96	81.57	0.44	-120.79
17.68	0.89	-155.09	0.01	3.83	7.68	81.02	0.45	-121.37
18.24	0.89	-155.97	0.01	-3.23	7.43	80.50	0.45	-121.90
18.80	0.89	-156.64	0.01	2.53	7.19	79.91	0.46	-122.45
19.36	0.90	-157.26	0.01	-7.10	6.95	79.33	0.46	-123.00
19.92	0.90	-157.88	0.02	2.86	6.74	78.75	0.46	-123.39
20.48	0.90	-158.51	0.01	-2.49	6.55	78.27	0.47	-123.87
21.04	0.90	-159.06	0.01	0.66	6.36	77.80	0.47	-124.24
21.60	0.90	-159.38	0.01	1.39	6.17	77.35	0.48	-124.84
22.16	0.90	-160.04	0.01	-0.33	6.01	76.69	0.48	-125.20
22.72	0.90	-160.47	0.01	0.37	5.85	76.38	0.48	-125.64
23.28	0.90	-160.97	0.01	-1.11	5.70	75.91	0.49	-126.10
23.84	0.90	-161.44	0.01	-4.88	5.55	75.27	0.49	-126.27
24.40	0.90	-161.68	0.01	-1.29	5.41	74.80	0.50	-126.56
24.96	0.90	-162.29	0.01	-0.45	5.28	74.39	0.50	-127.29
25.52	0.90	-162.56	0.02	-2.68	5.16	73.82	0.51	-127.36
26.08	0.90	-162.98	0.01	-5.35	5.04	73.46	0.51	-127.78
26.64	0.90	-163.29	0.01	-4.70	4.92	72.84	0.52	-128.36
27.20	0.90	-163.81	0.01	-3.38	4.82	72.28	0.52	-128.52
27.76	0.91	-164.05	0.01	-7.12	4.71	71.75	0.52	-128.88
28.32	0.90	-164.26	0.01	-1.90	4.59	71.36	0.53	-129.17
28.88	0.91	-164.63	0.01	-1.98	4.51	70.81	0.53	-129.54
29.44	0.91	-164.83	0.01	-2.49	4.42	70.42	0.54	-129.83
30.00	0.91	-165.24	0.01	-3.00	4.31	69.85	0.54	-130.17

PRELIMINARY

S-PARMATERS for Ids = 500mA and Vds = 85V

F MHz	mag S11	ang S11	mag S12	ang S12	mag S21	ang S21	mag S22	ang S22
2.00	1.00	-75.60	0.01	51.67	98.32	135.58	0.83	-77.19
2.56	0.92	-88.14	0.01	41.71	76.78	120.80	0.73	-90.21
3.12	0.89	-97.38	0.01	26.40	61.88	111.89	0.65	-99.74
3.68	0.87	-105.23	0.01	20.78	51.39	105.98	0.61	-107.26
4.24	0.87	-111.43	0.01	17.69	43.57	101.80	0.57	-113.20
4.80	0.87	-116.93	0.01	13.57	37.75	98.72	0.55	-118.05
5.36	0.87	-121.73	0.01	11.35	33.33	96.32	0.53	-121.94
5.92	0.87	-125.77	0.01	14.74	29.65	94.63	0.52	-125.82
6.48	0.88	-129.43	0.01	18.53	26.68	92.99	0.51	-128.85
7.04	0.88	-132.51	0.01	5.00	24.33	91.67	0.51	-131.50
7.60	0.89	-135.38	0.01	11.59	22.32	90.53	0.50	-133.72
8.16	0.89	-137.91	0.01	4.28	20.59	89.62	0.50	-135.79
8.72	0.90	-140.21	0.01	2.67	19.14	88.81	0.50	-137.30
9.28	0.90	-142.15	0.01	-0.50	17.89	87.97	0.49	-138.59
9.84	0.91	-144.08	0.01	7.28	16.77	87.74	0.49	-139.86
10.40	0.91	-145.79	0.01	3.08	15.74	86.98	0.49	-140.96
10.96	0.91	-147.24	0.01	4.92	14.91	86.27	0.49	-142.13
11.52	0.91	-148.71	0.01	4.59	14.13	85.96	0.49	-143.40
12.08	0.92	-150.00	0.01	0.05	13.37	85.37	0.49	-143.90
12.64	0.92	-151.28	0.01	-3.47	12.74	84.86	0.49	-144.57
13.20	0.92	-152.29	0.01	3.75	12.20	84.42	0.49	-145.23
13.76	0.93	-153.33	0.01	6.98	11.65	84.06	0.49	-145.74
14.32	0.93	-154.29	0.01	-1.36	11.15	83.58	0.49	-146.57
14.88	0.93	-155.22	0.01	7.91	10.75	83.43	0.49	-146.58
15.44	0.93	-156.05	0.01	6.46	10.32	83.03	0.50	-147.08
16.00	0.93	-156.02	0.01	4.31	10.32	83.01	0.50	-147.08
16.56	0.93	-156.80	0.01	3.45	9.95	82.75	0.50	-147.29
17.12	0.93	-157.45	0.01	3.31	9.60	82.30	0.50	-147.77
17.68	0.93	-158.24	0.01	7.43	9.26	81.97	0.50	-148.05
18.24	0.93	-159.00	0.01	-0.33	8.98	81.69	0.50	-148.23
18.80	0.93	-159.52	0.01	8.91	8.71	81.27	0.51	-148.60
19.36	0.94	-160.13	0.01	-5.90	8.41	80.91	0.51	-148.70
19.92	0.94	-160.64	0.01	6.68	8.18	80.48	0.51	-148.83
20.48	0.94	-161.22	0.01	6.33	7.96	80.17	0.51	-149.05
21.04	0.94	-161.70	0.01	13.23	7.74	79.82	0.51	-149.25
21.60	0.94	-162.01	0.01	10.44	7.51	79.49	0.52	-149.55
22.16	0.94	-162.64	0.01	4.32	7.33	79.06	0.52	-149.56
22.72	0.94	-163.02	0.01	6.04	7.14	78.83	0.52	-149.69
23.28	0.94	-163.36	0.01	8.23	6.97	78.51	0.52	-149.75
23.84	0.94	-163.92	0.01	4.67	6.80	77.96	0.53	-149.91
24.40	0.94	-164.13	0.01	3.79	6.62	77.61	0.53	-149.91
24.96	0.94	-164.61	0.01	7.04	6.48	77.41	0.53	-150.19
25.52	0.95	-164.83	0.01	4.29	6.34	76.89	0.53	-150.00
26.08	0.94	-165.25	0.01	1.02	6.20	76.63	0.53	-150.21
26.64	0.95	-165.49	0.01	1.65	6.06	76.12	0.54	-150.41
27.20	0.95	-165.87	0.01	4.26	5.95	75.63	0.54	-150.40
27.76	0.95	-166.18	0.01	4.00	5.82	75.23	0.54	-150.46
28.32	0.95	-166.42	0.01	11.55	5.68	74.90	0.55	-150.43
28.88	0.95	-166.71	0.01	9.83	5.58	74.44	0.55	-150.48
29.44	0.95	-166.89	0.01	5.47	5.47	74.11	0.55	-150.57
30.00	0.95	-167.21	0.01	2.61	5.35	73.63	0.55	-150.69

S-PARMATERS for Ids = 200mA and Vds = 150V

FREQ	mag S11	ang S11	mag S21	ang S21	mag S12	ang S12	mag S22	ang S22
30.00	0.985 /	-164	0.027 /	-0.428	2.988 /	87.481	0.469 /	-104.432
40.00	0.972 /	-169.4	0.028 /	-12.122	2.418 /	75.537	0.627 /	-110.792
50.00	0.963 /	-172.1	0.023 /	-24.503	1.824 /	62.952	0.756 /	-124.821
60.00	0.963 /	-174.1	0.020 /	-30.560	1.406 /	55.303	0.806 /	-134.397
70.00	0.963 /	-175.8	0.016 /	-31.162	1.129 /	49.494	0.835 /	-141.129
80.00	0.965 /	-177.1	0.013 /	-30.040	0.929 /	44.780	0.857 /	-146.214
90.00	0.967 /	-178.3	0.010 /	-27.418	0.781 /	40.232	0.872 /	-150.048
100.00	0.968 /	-179.3	0.008 /	-19.867	0.667 /	36.246	0.886 /	-153.386
110.00	0.969 /	179.75	0.006 /	-2.754	0.574 /	32.733	0.898 /	-155.949
120.00	0.970 /	178.99	0.006 /	8.322	0.502 /	29.717	0.906 /	-157.947
130.00	0.972 /	178.23	0.006 /	27.617	0.441 /	26.947	0.912 /	-160.096
140.00	0.971 /	177.29	0.006 /	44.780	0.393 /	24.016	0.921 /	-162.016
150.00	0.972 /	176.6	0.008 /	59.471	0.350 /	21.579	0.924 /	-163.648
160.00	0.972 /	175.9	0.009 /	63.960	0.316 /	19.409	0.929 /	-165.262
170.00	0.973 /	175.24	0.010 /	70.370	0.285 /	17.254	0.936 /	-166.491
180.00	0.974 /	174.48	0.012 /	69.920	0.258 /	15.438	0.940 /	-167.653
190.00	0.975 /	173.97	0.013 /	72.865	0.237 /	14.006	0.943 /	-168.645
200.00	0.975 /	173.41	0.015 /	75.453	0.216 /	12.167	0.949 /	-169.803
210.00	0.975 /	172.77	0.017 /	76.271	0.198 /	10.962	0.952 /	-170.829
220.00	0.975 /	172.25	0.018 /	77.550	0.183 /	10.057	0.952 /	-171.632
230.00	0.975 /	171.67	0.020 /	77.798	0.170 /	8.978	0.956 /	-172.337
240.00	0.973 /	171.1	0.021 /	79.336	0.157 /	8.367	0.958 /	-172.989
250.00	0.976 /	170.67	0.022 /	78.614	0.147 /	7.595	0.960 /	-173.679
260.00	0.976 /	170.24	0.023 /	79.747	0.138 /	6.905	0.960 /	-174.288
270.00	0.975 /	169.51	0.025 /	78.724	0.129 /	6.519	0.964 /	-174.901
280.00	0.976 /	169.12	0.027 /	78.855	0.120 /	6.542	0.961 /	-175.772
290.00	0.974 /	168.54	0.028 /	79.646	0.114 /	6.613	0.962 /	-176.021
300.00	0.974 /	168.04	0.030 /	79.190	0.106 /	6.674	0.964 /	-176.781
310.00	0.976 /	167.42	0.031 /	79.014	0.100 /	6.851	0.963 /	-177.411
320.00	0.976 /	166.98	0.033 /	78.105	0.095 /	7.030	0.964 /	-178.015
330.00	0.976 /	166.5	0.034 /	78.442	0.090 /	7.987	0.967 /	-178.532
340.00	0.976 /	165.94	0.035 /	77.971	0.085 /	8.645	0.968 /	-179.04
350.00	0.976 /	165.52	0.037 /	77.664	0.081 /	9.272	0.970 /	-179.518
360.00	0.976 /	165.04	0.038 /	77.268	0.078 /	10.502	0.972 /	-179.938
370.00	0.976 /	164.52	0.040 /	76.920	0.075 /	11.048	0.973 /	179.613
380.00	0.975 /	164	0.041 /	76.879	0.072 /	12.402	0.974 /	179.206
390.00	0.975 /	163.53	0.043 /	76.965	0.070 /	14.281	0.974 /	178.814
400.00	0.974 /	163.07	0.045 /	75.997	0.068 /	15.804	0.975 /	178.486
410.00	0.974 /	162.55	0.046 /	75.803	0.064 /	16.417	0.976 /	178.031
420.00	0.974 /	162.01	0.048 /	75.481	0.064 /	19.270	0.976 /	177.687
430.00	0.974 /	161.52	0.050 /	75.195	0.063 /	20.871	0.977 /	177.312
440.00	0.974 /	161.01	0.052 /	74.760	0.063 /	22.992	0.978 /	177.021
450.00	0.974 /	160.48	0.053 /	74.080	0.061 /	24.363	0.978 /	176.675
460.00	0.973 /	159.97	0.055 /	74.002	0.061 /	26.305	0.978 /	176.295
470.00	0.973 /	159.44	0.057 /	73.527	0.061 /	28.226	0.979 /	175.969
480.00	0.973 /	158.91	0.059 /	73.280	0.061 /	30.056	0.980 /	175.612
490.00	0.972 /	158.36	0.061 /	72.979	0.061 /	32.020	0.979 /	175.328
500.00	0.972 /	157.82	0.063 /	72.422	0.061 /	33.671	0.979 /	175.012

PRELIMINARY

S-PARMATERS for Ids = 500mA and Vds = 150V

F MHz	mag S11 ang S11	mag S12 ang S12	mag S21 ang S21	mag S22 ang S22
30.00	0.972 / -166.83	0.024/ 1.31	4.123 / 80.919	0.437 / -122.05
40.00	0.961 / -171.25	0.024/ -9.42	3.213 / 71.151	0.550 / -122.51
50.00	0.953 / -173.48	0.021/ -20.57	2.409 / 60.370	0.679 / -131.24
60.00	0.954 / -175.24	0.018/ -25.77	1.852 / 53.746	0.745 / -138.67
70.00	0.956 / -176.58	0.014/ -25.66	1.479 / 48.975	0.784 / -144.34
80.00	0.959 / -177.85	0.012/ -24.77	1.214 / 44.916	0.815 / -148.72
90.00	0.962 / -178.91	0.009/ -16.63	1.021 / 41.457	0.837 / -152.18
100.00	0.963 / -179.92	0.008/ -10.71	0.876 / 38.215	0.855 / -155.14
110.00	0.965 / 179.28	0.007/ 3.84	0.760 / 35.387	0.871 / -157.52
120.00	0.966 / 178.51	0.006 / 21.43	0.669 / 32.840	0.881 / -159.44
130.00	0.968 / 177.76	0.007 / 33.62	0.590 / 30.369	0.890 / -161.35
140.00	0.968 / 176.94	0.007 / 50.63	0.530 / 27.881	0.899 / -163.19
150.00	0.969 / 176.26	0.009 / 57.23	0.476 / 25.671	0.902 / -164.66
160.00	0.970 / 175.50	0.011 / 67.29	0.431 / 23.797	0.910 / -166.27
170.00	0.969 / 174.91	0.011 / 68.91	0.392 / 21.572	0.918 / -167.38
180.00	0.970 / 174.21	0.013 / 70.26	0.359 / 19.869	0.922 / -168.47
190.00	0.971 / 173.68	0.014 / 73.60	0.330 / 18.274	0.926 / -169.38
200.00	0.971 / 173.07	0.015 / 74.18	0.299 / 17.196	0.932 / -170.41
210.00	0.971 / 172.50	0.017 / 74.24	0.280 / 14.998	0.937 / -171.32
220.00	0.972 / 171.86	0.019 / 75.56	0.260 / 13.641	0.938 / -172.13
230.00	0.972 / 171.45	0.019 / 77.06	0.242 / 12.329	0.942 / -172.75
240.00	0.972 / 170.91	0.021 / 76.73	0.225 / 11.133	0.945 / -173.40
250.00	0.976 / 170.36	0.023 / 77.85	0.212 / 9.768	0.947 / -174.06
260.00	0.974 / 170.07	0.024 / 78.35	0.199 / 9.038	0.948 / -174.64
270.00	0.971 / 169.36	0.025 / 78.20	0.187 / 8.074	0.953 / -175.13
280.00	0.972 / 168.83	0.027 / 77.62	0.176 / 7.216	0.952 / -175.79
290.00	0.971 / 168.31	0.029 / 78.26	0.165 / 6.391	0.952 / -176.24
300.00	0.972 / 167.79	0.030 / 78.12	0.156 / 6.231	0.953 / -176.96
310.00	0.973 / 167.33	0.031 / 78.03	0.149 / 5.587	0.952 / -177.58
320.00	0.973 / 166.83	0.033 / 77.49	0.140 / 5.009	0.954 / -178.17
330.00	0.972 / 166.36	0.034 / 77.15	0.133 / 5.291	0.957 / -178.68
340.00	0.972 / 165.83	0.036 / 76.97	0.126 / 4.941	0.959 / -179.18
350.00	0.974 / 165.40	0.037 / 77.21	0.120 / 4.956	0.960 / -179.63
360.00	0.973 / 164.91	0.039 / 76.74	0.115 / 4.758	0.963 / 179.99
370.00	0.974 / 164.44	0.040 / 76.57	0.110 / 4.702	0.964 / 179.59
380.00	0.972 / 163.91	0.042 / 76.23	0.105 / 5.234	0.966 / 179.22
390.00	0.972 / 163.46	0.043 / 75.70	0.101 / 6.041	0.966 / 178.82
400.00	0.971 / 162.98	0.045 / 75.39	0.097 / 6.513	0.968 / 178.45
410.00	0.971 / 162.47	0.046 / 75.27	0.094 / 5.051	0.968 / 178.05
420.00	0.971 / 161.95	0.048 / 74.85	0.090 / 7.829	0.969 / 177.73
430.00	0.971 / 161.46	0.050 / 74.48	0.087 / 8.676	0.971 / 177.35
440.00	0.971 / 160.95	0.051 / 74.33	0.084 / 9.387	0.973 / 177.04
450.00	0.970 / 160.44	0.053 / 73.64	0.082 / 11.009	0.972 / 176.73
460.00	0.970 / 159.94	0.055 / 73.50	0.080 / 11.543	0.972 / 176.37
470.00	0.970 / 159.42	0.057 / 73.10	0.078 / 13.145	0.973 / 176.05
480.00	0.970 / 158.90	0.059 / 72.90	0.077 / 14.432	0.974 / 175.71
490.00	0.969 / 158.36	0.061 / 72.67	0.075 / 16.109	0.973 / 175.41
500.00	0.969 / 157.83	0.063 / 71.99	0.074 / 17.437	0.974 / 175.12

PRELIMINARY

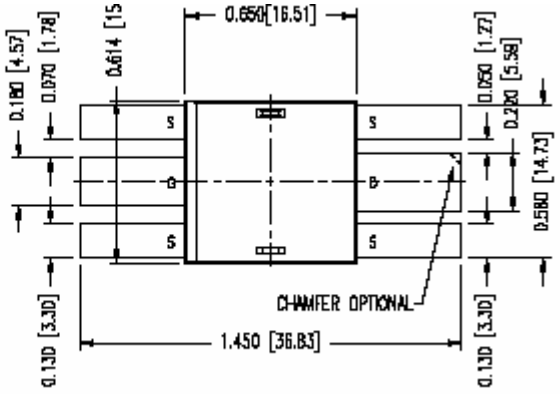
S-PARMATERS for Ids = 1A and Vds = 150V

F MHz	mag S11 ang S11	mag S12 ang S12	mag S21 ang S21	mag S22 ang S22
30	0.963 / -169.123	0.020 / 3.477	4.942 / 77.820	0.435 / -137.513
40	0.951 / -172.917	0.021 / -4.926	3.815 / 69.106	0.505 / -134.339
50	0.943 / -174.788	0.018 / -12.764	2.890 / 58.963	0.618 / -137.849
60	0.946 / -176.203	0.016 / -18.683	2.230 / 52.200	0.687 / -142.755
70	0.948 / -177.357	0.014 / -16.858	1.779 / 47.123	0.733 / -147.101
80	0.952 / -178.457	0.012 / -16.420	1.458 / 43.025	0.772 / -150.627
90	0.955 / -179.449	0.009 / -10.102	1.220 / 39.458	0.802 / -153.615
100	0.957 / 179.705	0.008 / -1.389	1.038 / 36.186	0.824 / -156.184
110	0.960 / 178.936	0.007 / 9.658	0.894 / 33.271	0.843 / -158.326
120	0.962 / 178.170	0.007 / 24.560	0.783 / 30.862	0.858 / -160.076
130	0.963 / 177.479	0.007 / 36.896	0.688 / 28.701	0.870 / -161.908
140	0.964 / 176.627	0.008 / 51.624	0.615 / 26.345	0.880 / -163.607
150	0.965 / 175.974	0.009 / 60.710	0.551 / 24.277	0.886 / -165.069
160	0.966 / 175.320	0.011 / 64.471	0.498 / 22.370	0.895 / -166.662
170	0.966 / 174.688	0.012 / 68.556	0.451 / 20.406	0.904 / -167.7
180	0.968 / 174.005	0.013 / 70.179	0.415 / 18.797	0.909 / -168.732
190	0.969 / 173.455	0.014 / 72.336	0.383 / 17.392	0.915 / -169.635
200	0.969 / 172.895	0.016 / 75.100	0.350 / 15.646	0.921 / -170.668

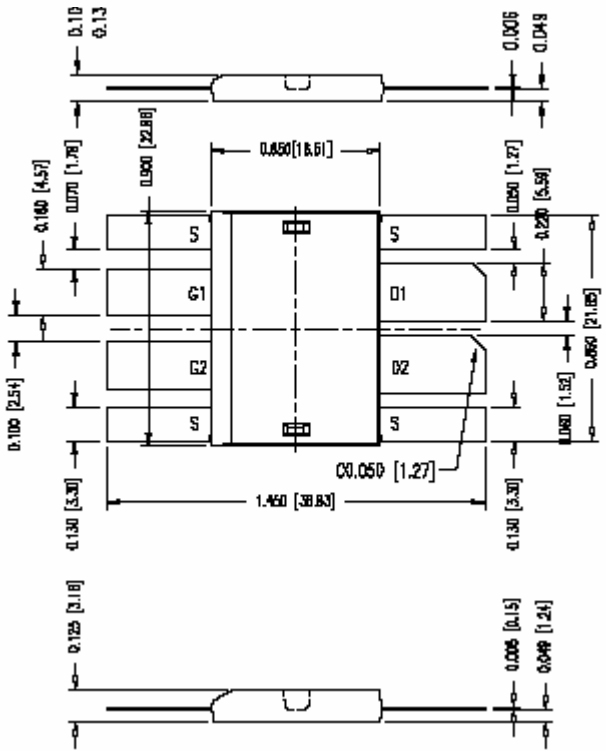
PRELIMINARY

IXZ210N50L & IXZ2210N50L
RF Power MOSFET

IXZ210N50L



IXZ2210N50L



PRELIMINARY

Doc #dsIXZ210N50L REV 06/04

IXYS RF reserves the right to change limits, test conditions and dimensions.
IXYS RF MOSFETS are covered by one or more of the following U.S. patents:

4,835,592	4,860,072	4,881,106	4,891,686	4,931,844	5,017,508
5,034,796	5,049,961	5,063,307	5,187,117	5,237,481	5,486,715
5,381,025	5,640,045	6,404,065	6,583,505	6,710,463	6,727,585

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