



RADIATION TEST SUMMARY

PART TYPE : IRFY044

DESCRIPTION : N-CHANNEL MOSFET

REPORT NO. : RD 157

PARAMETERS PLOTTED :

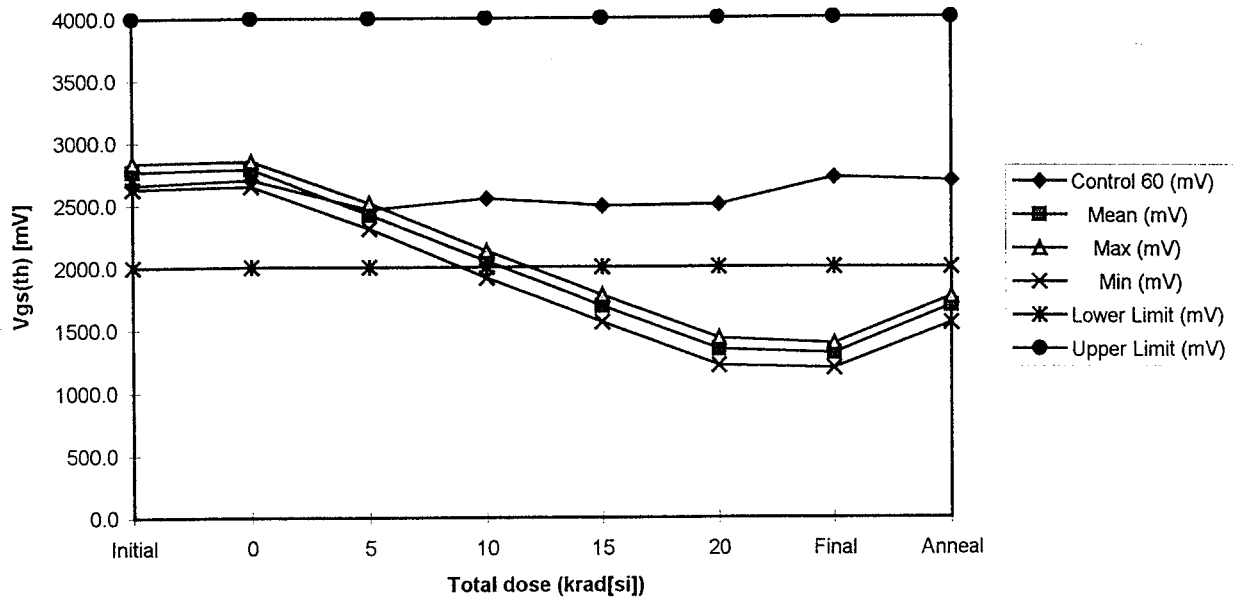
Vgs(th)

NOTE :

The results for I_{gss} , I_{dss} and $R_{ds(on)}$ showed no significant change and hence plots were not considered necessary.



Radiation Results for IRFY044



Dose (kRad)	Control 60 (mV)	Mean (mV)	Max (mV)	Min (mV)	Lower Limit (mV)	Upper Limit (mV)	Std.Dev.
Initial	2658.2	2765.5	2834.2	2630.1	2000	4000	91.80
0	2700.3	2790.0	2851.9	2647.6	2000	4000	95.52
5	2465.8	2421.3	2516.7	2307.3	2000	4000	86.18
10	2552.3	2047.3	2130.0	1911.3	2000	4000	94.73
15	2488.9	1687.1	1772.2	1555.9	2000	4000	92.69
20	2498.4	1342.0	1426.1	1212.9	2000	4000	91.18
Final	2716.7	1310.5	1386.1	1188.6	2000	4000	85.37
Anneal	2690.9	1691.6	1764.9	1552.4	2000	4000	95.08

Lot size for statistics : 4 devices

RD 157 Date code 9519A

IRFY044 PO-PL-I66-PL-0015 ISS 2 / 1.0 SMR 24/10/95

Socket adapter type: SA 07.01

Fets per device : 1 (N)

Pin assignment : 1

1. V(BR)DSS			60.0	...	700.0	V
Switch : off			Pin assignment : 1			
ID	0.250	mA				
<hr/>						
2. VGS			2000.0	...	4000.0	mV
Switch : off			Pin assignment : 1			
ID	1.000	mA				
<hr/>						
3. IGSS (FWD)		(0.0)...	100.0	nA
Switch : off			Pin assignment : 1			
VGS	20.000	V		Add. time	0	ms
<hr/>						
4. IDSS		(0)...	250	uA
Switch : off			Pin assignment : 1			
VDS	60.000	V		Add. time	0	ms
<hr/>						
5. RDS on		(0.001)	...	0.035	Ohm
Switch : off			Pin assignment : 1			
VGS	10.000	V		ID	20000.000	mA

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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Results file : IRFY044_RD157_INIT_@_I66 from: 08.01.96 / 12:12:55
Operator : S.M.RALPHS
Part number : IRFY044
Lot number : D/C 9519A
Order number : RIR 62745
Vendor : IR
: S/NOS. 83,99,103,120 CONTROL S/N0.60
: TEST #3 INIT.ELEC.MEAS. AT I66
: IRFY044 PO-PL-I66-PL-0015 ISS 2 / 1.0 SMR 24/10/95
=====

Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	64.5	65.5	65.1	65.3	65.6
2.1 [mV]	2658.2	2630.1	2834.2	2801.3	2796.3
3.1 [nA]	1.6	1.6	1.7	1.7	1.7
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.021	0.022	0.022	0.022	0.024

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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Results file : IRFY044_RD157_INIT_@_ERA from: 25.02.70 / 21:25:56
Operator : Steve Young.
Part number : IRFY044
Lot number : D/C 9519A
Order number : RIR 62745
Vendor : IR
: S/NOS. 83,99,103,120 CONTROL S/NO.60
: TEST #4 INIT.ELEC.MEAS. AT ERA
: IRFY044 PO-PL-IGG-PL-0015 ISS 2 / 1.0 SMR 24/10/95
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Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	63.9	65.7	65.0	64.9	65.2
2.1 [mV]	2700.3	2647.6	2851.9	2826.9	2833.6
3.1 [nA]	1.4	1.4	1.4	1.4	1.4
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.022	0.023	0.024	0.022	0.024

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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=====
Results file   : IRFY044_RD157_EMS_@_5_KRAD   from: 25.02.70 / 22:06:51
Operator      : Steve Young.
Part number   : IRFY044
Lot number    : D/C 9519A
Order number  : RIR 62745
Vendor       : IR
              : S/NOS. 83,99,103,120   CONTROL 5/NO.60
              : TEST #7(i) ELEC MEAS AT 5 KRAD
              : IRFY044 PO-PL-I66-PL-0015 ISS 2 / 1.0 SMR 24/10/95
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Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	I6SS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

6.

	60	83	99	103	120
1.1 [V]	66.6	65.0	64.7	65.2	65.4
2.1 [mV]	2465.8	2307.3	2516.7	2433.1	2427.9
3.1 [nA]	1.9	1.5	1.5	1.6	1.5
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.025	0.022	0.022	0.023	0.026

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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Results file   : IRFY044_RD157_EMS_@_10_KRAD   from: 25.02.70 / 22:14:38
Operator      : Steve Young.
Part number   : IRFY044
Lot number    : D/C 9519A
Order number  : RIR 62745
Vendor       : IR
              : S/NOS. 83,99,103,120   CONTROL S/NO.60
              : TEST #7(ii) ELEC MEAS AT 10 KRAD
              : IRFY044 PO-PL-IGG-PL-0015 ISS 2 / 1.0 SMR 24/10/95
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Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	65.6	65.3	64.9	64.7	64.9
2.1 [mV]	2552.3	1911.3	2131.0	2084.9	2083.0
3.1 [nA]	1.7	1.6	1.6	1.6	1.6
4.1 [uA]	0	3	1	0	0
5.1 [Ohm]	0.024	0.022	0.022	0.022	0.025

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
 RAD_TEST / 1.0 SMR 24/10/95

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Results file : IRFY044_RD157_EMS_0_15_KRAD from: 25.02.70 / 22:52:22
 Operator : Steve Young.
 Part number : IRFY044
 Lot number : D/C 9519A
 Order number : RIR 62745
 Vendor : IR
 : S/NOS. 83,99,103,120 CONTROL 9/NO.60
 : TEST #7(iii) ELEC MEAS AT 15 KRAD
 : IRFY044 PO-PL-166-PL-0015 ISS 2 / 1.0 SMR 24/10/95

Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	UGS	2000.0	...	4000.0	mV
3.	I6SS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	65.1	64.8	64.5	64.7	64.7
2.1 [mV]	2488.9	1555.9	1772.2	1698.5	1721.6
3.1 [nA]	1.9	1.6	1.6	1.6	1.6
4.1 [uA]	0	32	6	1	5
5.1 [Ohm]	0.025	0.022	0.022	0.022	0.024

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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Results file : IRFY044_RD157_EMS_@_20_KRAD from: 25.02.70 / 23:20:35
Operator : Steve Young.
Part number : IRFY044
Lot number : D/C 9519A
Order number : RIR 62745
Vendor : IR
: S/NOS. 83,99,103,120 CONTROL S/NO.60
: TEST #7(iv) ELEC MEAS AT 20 KRAD
: IRFY044 PO-PL-I66-PL-0015 ISS 2 / 1.0 SMR 24/10/95
=====

Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	66.3	55.0	64.7	64.7	65.0
2.1 [mV]	2498.4	1212.9 F	1426.1 F	1354.4 F	1374.4 F
3.1 [nA]	1.9	1.6	1.7	1.6	1.6
4.1 [uA]	0	131	24	6	28
5.1 [Ohm]	0.024	0.021	0.023	0.021	0.023

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST / 1.0 SMR 24/10/95

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Results file   : IRFY044_RD157_END_POINT_EMS   from: 26.02.70 / 20:26:25
Operator      : Steve Young.
Part number   : IRFY044
Lot number    : D/C 9519A
Order number  : RIR 62745
Vendor       : IR
              : S/NOS. 83,99,103,120 CONTROL S/NO.60
              : TEST #8 END POINT EMS
              : IRFY044 PO-PL-IG6-PL-0015 ISS 2 / 1.0 SMR 24/10/95
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Test steps

1.	V(BR)DSS	60.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	63.7	65.0	64.8	64.5	65.0
2.1 [mV]	2716.7	1188.6 F	1386.1 F	1323.1 F	1344.1 F
3.1 [nA]	1.5	1.5	1.5	1.5	1.5
4.1 [uA]	0	69	17	5	17
5.1 [Ohm]	0.022	0.021	0.022	0.021	0.024

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
IRFY044_RD157_FINAL_EMS / 1.0 SMR 24/10/95

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Results file : IRFY044_RD157_FINAL_EMS from: 18.01.96 / 16:46:09
Operator : S.M.RALPHS
Part number : IRFY044
Lot number : D/C 9519A
Order number : RD 157
Vendor : IR
: S/NOS.83,99,103,120 CONTROL S/NO.60
: TEST #25 FINAL ELEC.MEAS.
: IRFY044 PO-PL-I66-PL-0015 ISS.2 / 1.0 SMR 24/10/95
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Test steps

1.	V(BR)DSS	50.0	...	700.0	V
2.	VGS	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.001)	...	0.035	Ohm

	60	83	99	103	120
1.1 [V]	64.1	65.9	64.8	65.2	65.4
2.1 [mV]	2690.9	1552.4 F	1734.6 F	1764.9 F	1714.4 F
3.1 [nA]	1.5	1.5	1.5	1.6	1.5
4.1 [uA]	0	6	2	0	2
5.1 [Ohm]	0.021	0.022	0.023	0.022	0.025