



RADIATION TEST SUMMARY

PART TYPE : 2N6849

DESCRIPTION : P-CHANNEL MOSFET

REPORT NO. : RD 179

PARAMETERS PLOTTED :

Vgs(th)
Rds(on)

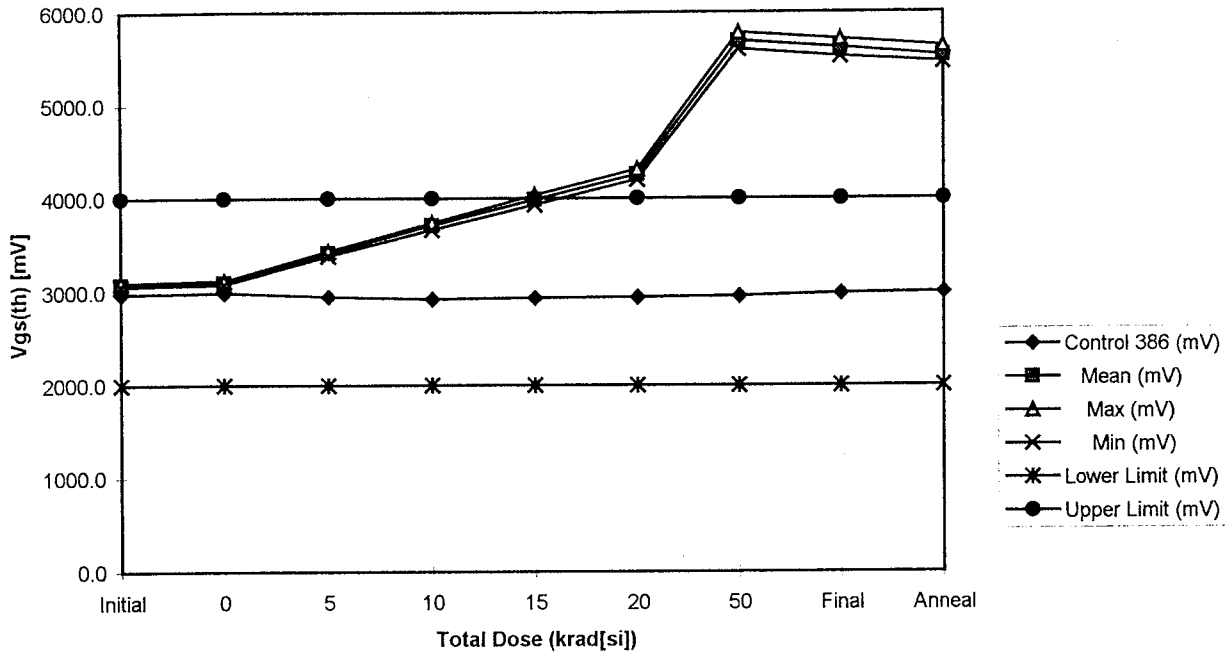
NOTE :

The results for I_{gss} , I_{dss} and $V(BR)_{DSS}$ showed no significant change and hence plots were not considered necessary.

Specification no. PO-PL-IGG-PL-0003 Iss.3 Appendix 1.



Radiation Results for 2N6849



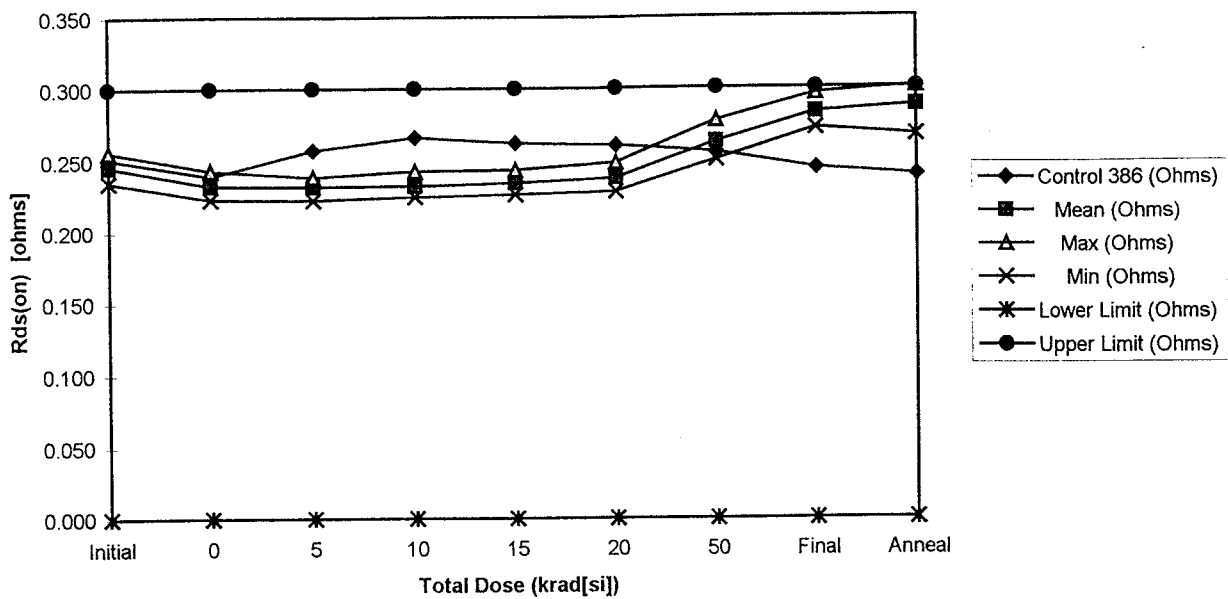
Dose (kRad)	Control 386 (mV)	Mean (mV)	Max (mV)	Min (mV)	Lower Limit (mV)	Upper Limit (mV)	Std.Dev.
Initial	2973.5	3082.0	3097.2	3056.9	2000	4000	18.76
0	2989.3	3102.4	3117.3	3076.3	2000	4000	18.81
5	2947.0	3413.5	3437.1	3384.6	2000	4000	27.44
10	2923.4	3711.0	3743.8	3667.4	2000	4000	33.39
15	2933.6	3989.2	4034.6	3932.9	2000	4000	43.85
20	2942.2	4258.0	4308.9	4199.6	2000	4000	46.45
50	2953.9	5691.1	5778.4	5597.6	2000	4000	75.88
Final	2983.6	5621.2	5712.4	5527.4	2000	4000	78.25
Anneal	2993.8	5530.3	5638.3	5461.2	2000	4000	85.29

Lot size for statistics : 4 devices

RD 179 Date code 9528



Radiation Results for 2N6849



Dose (kRad)	Control 386 (Ohms)	Mean (Ohms)	Max (Ohms)	Min (Ohms)	Lower Limit (Ohms)	Upper Limit (Ohms)	Std.Dev.
Initial	0.251	0.246	0.256	0.235	0.000	0.300	0.009
0	0.239	0.233	0.243	0.223	0.000	0.300	0.008
5	0.257	0.232	0.238	0.222	0.000	0.300	0.007
10	0.266	0.232	0.242	0.224	0.000	0.300	0.008
15	0.262	0.234	0.243	0.226	0.000	0.300	0.007
20	0.260	0.237	0.248	0.228	0.000	0.300	0.008
50	0.255	0.263	0.277	0.250	0.000	0.300	0.011
Final	0.244	0.283	0.296	0.272	0.000	0.300	0.010
Anneal	0.239	0.288	0.301	0.267	0.000	0.300	0.015

Lot size for statistics : 4 devices

RD 179 Date code 9528

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST_2N6849_INIT_EMS@_IG6 / V1.0 SMR 24/10/95

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Results file : 2N6849_RIR66793_INIT_EMS@_IG6 from: 18.03.70 / 00:43:54
Operator : Steve Young & Paul Russell.
Part number : 2N6849.
Lot number : Date Code 9528.
Order number : RIR 66793.
Vendor : IR.
: Samples S/No's 391,392,393,394 + Control S/No 386.
: TEST #3 INITIAL ELECTRICAL MEASUREMENTS @ IG6.
: 2N6849 PO-PL-IG6-PL-0003 ISS.3 / V1.0 SMR 24/10/95
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Test steps

1. -V(BR)DSS	100.0	...	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	(0.000)	...	0.300	Ohm

	386	391	392	393	394
1.1 [V]	132.1	130.2	131.9	127.0	133.3
2.1 [mV]	2973.5	3078.5	3097.2	3056.9	3095.5
3.1 [nA]	1.4	1.4	1.4	1.4	1.4
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.251	0.249	0.243	0.235	0.256

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST_2N6849_INIT_EMS@_IGG / V1.0 SMR 24/10/95

=====
Results file : 2N6849_RIR66793_INIT_EMS@_ERA from: 18.03.70 / 20:57:39
Operator : Steve Young & Paul Russell.
Part number : 2N6849.
Lot number : Date Code 9528.
Order number : RIR 66793.
Vendor : IR.
: Samples S/No's 391,392,393,394 + Control S/No 386.
: TEST #4 INITIAL ELECTRICAL MEASUREMENTS @ ERA.
: 2N6849 PO-PL-IGG-PL-0003 ISS.3 / V1.0 SMR 24/10/95
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Test steps

1. -V(BR)DSS	100.0	...	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	(0.000)	...	0.300	Ohm

	386	391	392	393	394
1.1 [V]	131.4	129.5	131.5	126.3	132.8
2.1 [mV]	2989.3	3101.1	3117.3	3076.3	3114.9
3.1 [nA]	1.3	1.3	1.3	1.3	1.3
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.239	0.232	0.232	0.223	0.243

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST_2N6849_INIT_EMS@_IGG / V1.0 SMR 24/10/95

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Results file : 2N6849_RIR66793_EMS@_5_KRADS from: 18.03.70 / 21:03:40
Operator : Steve Young & Paul Russell.
Part number : 2N6849.
Lot number : Date Code 9528.
Order number : RIR 66793.
Vendor : IR.
: Samples S/No's 391,392,393,394 + Control S/No 386.
: TEST #7 EMS @ 5 KRADS
: 2N6849 PO-PL-IGG-PL-0003 ISS.3 / V1.0 SMR 24/10/95
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Test steps

1. -V(BR)DSS	100.0	...	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	(0.000)	...	0.300	Ohm

6.

	386	391	392	393	394
1.1 [V]	132.9	129.7	130.9	125.9	132.6
2.1 [mV]	2947.0	3395.5	3437.1	3384.6	3436.8
3.1 [nA]	1.4	1.3	1.4	1.4	1.4
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.257	0.236	0.230	0.222	0.238

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RAD_TEST_2N6849_INIT_EMS@_IG6 / V1.0 SMR 24/10/95

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Results file   : 2N6849_RIR66793_EMS@_10_KRADS   from: 18.03.70 / 21:38:55
Operator      : Steve Young & Paul Russell.
Part number   : 2N6849.
Lot number    : Date Code 9528.
Order number  : RIR 66793.
Vendor       : IR.
              : Samples S/No's 391,392,393,394 + Control S/No 386.
              : TEST #13 EMS @ 10 KRADS
              : 2N6849 PO-PL-IG6-PL-0003 ISS.3 / V1.0 SMR 24/10/95
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Test steps

1. -V(BR)DSS	100.0	...	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	(0.000)	...	0.300	Ohm

	386	391	392	393	394
1.1 [V]	133.4	129.3	130.7	125.9	132.3
2.1 [mV]	2923.4	3703.8	3728.8	3667.4	3743.8
3.1 [nA]	1.4	1.4	1.4	1.4	1.4
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.266	0.232	0.229	0.224	0.242

	386	391	392	393	394
1.1 [V]	133.2	129.2	131.0	126.1	132.5
2.1 [mV]	2942.2	4246.8 F	4276.6 F	4199.6 F	4308.9 F
3.1 [nA]	1.4	1.4	1.4	1.4	1.4
4.1 [uA]	0	1	0	1	0
5.1 [Ohm]	0.260	0.237	0.236	0.228	0.248

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
 RAD_TEST_2N6849_INIT_EMS @_IG6 / V1.0 SMR 24/10/95

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Results file : 2N6849_RIR66793_EMS @_50_KRADS from: 19.03.70 / 01:16:56
 Operator : Steve Young & Paul Russell.
 Part number : 2N6849.
 Lot number : Date Code 9528.
 Order number : RIR 66793.
 Vendor : IR.
 : Samples S/No's 391,392,393,394 + Control S/No 386.
 : TEST #22 EMS @ 50 KRADS
 : 2N6849 PO-PL-IG6-PL-0003 ISS.3 / V1.0 SMR 24/10/95

Test steps

1. -V(BR)DSS	100.0	...	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	(0.000)	...	0.300	Ohm

	386	391	392	393	394
1.1 [V]	131.9	130.3	132.1	126.8	133.3
2.1 [mV]	2983.6	5597.4 F	5647.4 F	5527.4 F	5712.4 F
3.1 [nA]	1.1	1.1	1.2	1.1	1.2
4.1 [uA]	0	2	1	2	1
5.1 [Ohm]	0.244	0.281	0.283	0.272	0.296

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

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Results file : 2N6849_RD179_FINAL_EMS from: 07.02.96 / 14:34:27
Operator : Steve Ralphs
Part number : 2N6849.
Lot number : Date Code 9528.
Order number : RIR 66793.
Vendor : IR.
          : S/Nos. 391,392,393,394 : Control S/No 386.
          : TEST #25 FINAL EMS
          : 2N6849 PO-PL-I66-PL-0003 ISS 3 / V1.0 SMR 24/10/95.
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Test steps

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1. -V(BR)DSS          100.0   ...   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           ( 0.000 )...   0.300   Ohm
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