



RADIATION TEST SUMMARY

PART TYPE : 2N6849

DESCRIPTION : P-CHANNEL MOSFET

REPORT NO. : RD 175

PARAMETERS PLOTTED :

V_{gs(th)}

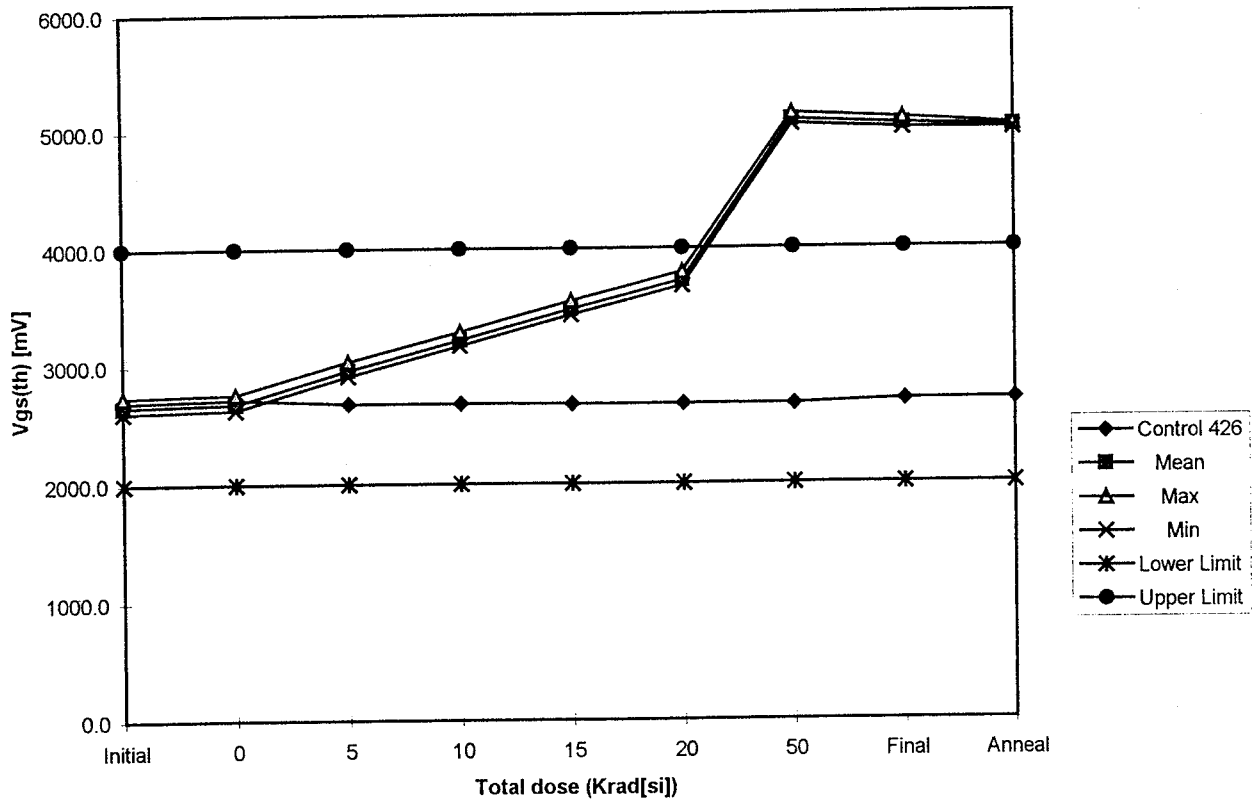
NOTE :

The results for V(BR)DSS, I_{GSS}, I_{DSS} and RDS(on) showed no significant change and plots were not considered necessary.

Specification: PO-PL-IGG-PL-0003, Appendix 1



Radiation Results for 2N6849



Dose (kRad)	Control 426 (mV)	Mean (mV)	Max (mV)	Min (mV)	Lower Limit (mV)	Upper Limit (mV)	Std.Dev.
Initial	2692.4	2655.7	2738.7	2606.6	2000	4000	58.62
0	2716.7	2678.8	2759.5	2630.6	2000	4000	56.90
5	2676.1	2959.4	3036.6	2910.8	2000	4000	54.31
10	2676.9	3217.4	3292.0	3170.6	2000	4000	52.42
15	2670.0	3478.7	3554.6	3429.5	2000	4000	53.36
20	2673.9	3727.1	3798.9	3679.4	2000	4000	51.30
50	2667.8	5087.9	5142.2	5049.9	2000	4000	44.01
Final	2701.0	5046.7	5099.4	5010.9	2000	4000	42.58
Anneal	2703.0	5025.1	5041.2	5004.1	2000	4000	16.77

Lot size for statistics : 4 devices

RD 175 Date code 9528

SZ-TESTSYSTEME Family Testadaptor TA07F 07.06.91 / 10:56:59

2N6849 PO-PL-IG6-PL-0003 ISS.3 / V1.0 SMR 24/10/95

Socket adapter type: SA07.03

Fets per device : 1 (P)

Pin assignment : 1

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 1. -V(BR)DSS          100.0 ... 700.0 V
Switch : off          | Pin assignment : 1
-ID          0.250 mA |
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 2. -VGS                2000.0 ... 4000.0 mV
Switch : off          | Pin assignment : 1
-ID          0.250 mA |
-----
 3. -IGSS (FWD)        ( 0.0 )... 100.0 nA
Switch : off          | Pin assignment : 1
-VGS         20.000 V | Add. time      0 ms |
-----
 4. -IDSS              ( 0 )... 250 uA
Switch : off          | Pin assignment : 1
-VDS         100.000 V | Add. time      0 ms |
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 5. RDS on             ( 0.000 )... 0.300 Ohm
Switch : off          | Pin assignment : 1
-VGS         10.000 V | -ID           4100.000 mA |
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Results file : 2N6849_RD175_INIT_EMS@_IG6 from: 15.03.70 / 01:13:27
Operator : Steve Young.
Part number : 2N6849.
Lot number : Date Code 9418B.
Order number : RIR 64225 / RD175.
Vendor : IR.
: 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
: TEST #3 INITIAL EMS @ IG6.
: 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

	426	427	431	432	433
1.1 [V]	124.5	123.9	126.8	123.2	125.9
2.1 [mV]	2692.4	2653.3	2738.7	2606.6	2624.0
3.1 [nA]	1.6	1.7	1.7	1.7	1.7
4.1 [uA]	0	11	0	2	0
5.1 [Ohm]	0.223	0.227	0.227	0.225	0.225

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS_@_IGG. / V1.0 SMR 24/10/95

Results file : 2N6849_RD175_INIT_EMS_@_ERA. from: 17.03.70 / 21:01:37
 Operator : Steve Young & Paul Russell.
 Part number : 2N6849.
 Lot number : Date Code 9418B.
 Order number : RIR 64225 / RD175.
 Vendor : IR.
 : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
 : TEST #4 INITIAL EMS @ ERA.
 : 2N6849 PO-PL-IGG-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

	426	427	431	432	433
1.1 [V]	123.7	123.1	125.9	122.4	125.0
2.1 [mV]	2716.7	2675.9	2759.5	2630.6	2649.3
3.1 [nA]	0.8	0.8	0.8	0.8	0.8
4.1 [uA]	0	11	0	2	0
5.1 [Ohm]	0.208	0.209	0.210	0.208	0.214

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS@_IGG. / V1.0 SMR 24/10/95

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Results file   : 2N6849_RD175_EMS@_5_KRADS.   from: 17.03.70 / 21:27:36
Operator      : Steve Young & Paul Russell.
Part number   : 2N6849.
Lot number    : Date Code 9418B.
Order number  : RIR 64225 / RD175.
Vendor       : IR.
              : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
              : 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

	426	427	431	432	433
1.1 [V]	125.2	122.7	125.7	122.4	125.0
2.1 [mV]	2676.1	2952.8	3036.6	2910.8	2937.4
3.1 [nA]	1.2	1.2	1.2	1.2	1.1
4.1 [uA]	0	8	0	2	0
5.1 [Ohm]	0.228	0.214	0.212	0.213	0.215

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS@_IGG. / V1.0 SMR 24/10/95

=====
Results file : 2N6849_RD175_EMS@_10_KRADS. from: 17.03.70 / 21:47:44
Operator : Steve Young & Paul Russell.
Part number : 2N6849.
Lot number : Date Code 9418B.
Order number : RIR 64225 / RD175.
Vendor : IR.
: 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
: TEST #13 EMS @ 10 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

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	426	427	431	432	433
1.1 [V]	125.4	122.7	125.9	122.1	125.2
2.1 [mV]	2676.9	3210.6	3292.0	3170.6	3196.4
3.1 [nA]	1.3	1.2	1.2	1.2	1.2
4.1 [uA]	0	7	0	2	0
5.1 [Ohm]	0.227	0.210	0.211	0.212	0.213

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS@_IGG. / V1.0 SMR 24/10/95

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=====
Results file   : 2N6849_RD175_EMS@_15_KRADS.   from: 17.03.70 / 22:18:02
Operator      : Steve Young & Paul Russell.
Part number   : 2N6849.
Lot number    : Date Code 9418B.
Order number  : RIR 64225 / RD175.
Vendor       : IR.
              : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
              : TEST #16 EMS @ 15 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

	426	427	431	432	433
1.1 [V]	125.5	122.8	125.9	122.3	124.9
2.1 [mV]	2670.0	3463.9	3554.6	3429.5	3466.8
3.1 [nA]	1.3	1.3	1.3	1.3	1.3
4.1 [uA]	0	6	0	2	1
5.1 [Ohm]	0.229	0.211	0.217	0.213	0.217

=====
Results file : 2N6849_RD175_EMS@_20_KRADS. from: 17.03.70 / 22:48:35
Operator : Steve Young & Paul Russell.
Part number : 2N6849.
Lot number : Date Code 9418B.
Order number : RIR 64225 / RD175.
Vendor : IR.
: 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
: TEST #19 EMS @ 20 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

	426	427	431	432	433
1.1 [V]	125.4	122.9	126.0	122.3	125.2
2.1 [mV]	2673.9	3705.7	3798.9	3679.4	3724.4
3.1 [nA]	1.4	1.4	1.4	1.4	1.4
4.1 [uA]	0	6	1	2	1
5.1 [Ohm]	0.226	0.217	0.216	0.214	0.217

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS@_IG6. / V1.0 SMR 24/10/95

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=====
Results file   : 2N6849_RD175_EMS_@_50_KRADS.   from: 18.03.70 / 00:47:32
Operator      : Steve Young & Paul Russell.
Part number   : 2N6849.
Lot number    : Date Code 9418B.
Order number  : RIR 64225 / RD175.
Vendor       : IR.
              : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
              : TEST #22 EMS @ 50 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

	426	427	431	432	433
1.1 [V]	125.6	123.1	125.8	122.4	125.1
2.1 [mV]	2667.8	5054.4 F	5142.2 F	5049.9 F	5105.1 F
3.1 [nA]	1.6	1.5	0.7	1.5	1.5
4.1 [uA]	0	4	1	3	2
5.1 [Ohm]	0.229	0.231	0.233	0.234	0.235

SZ-TESTSYSTEME Statistics 03 Vers. 2.15 for TA07F
RD175_2N6849_INIT_EMS@_IG6. / V1.0 SMR 24/10/95

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Results file   : 2N6849_RD175_END_POINT_EMS   from: 19.03.70 / 01:11:45
Operator      : Steve Young & Paul Russell.
Part number   : 2N6849.
Lot number    : Date Code 9418B.
Order number  : RIR 64225 / RD175.
Vendor       : IR.
              : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
              : TEST #24 END POINT EMS
              : 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

	426	427	431	432	433
1.1 [V]	124.3	123.5	126.4	122.7	125.6
2.1 [mV]	2701.0	5010.9 F	5099.4 F	5013.3 F	5063.0 F
3.1 [nA]	1.2	1.4	1.4	1.3	1.3
4.1 [uA]	0	5	2	3	2
5.1 [Ohm]	0.210	0.239	0.242	0.239	0.244

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=====
Results file   : 2N6849_RD175_FINAL_EMS   from: 06.02.96 / 09:52:44
Operator      : Steve Ralphs
Part number   : 2N6849.
Lot number    : Date Code 9418B.
Order number  : RIR 64225 / RD175.
Vendor       : IR.
              : 4 PARTS S/No's 427,431,432,433 + 1 CONTROL S/No 426.
              : TEST #25 END POINT EMS
              : 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

	426	427	428	429	430
1.1 [V]	124.1	123.4	126.4	122.8	125.5
2.1 [mV]	2703.0	5041.2 F	5019.3 F	5035.6 F	5004.1 F
3.1 [nA]	1.2	1.2	1.2	1.1	1.1
4.1 [uA]	0	5	1	3	2
5.1 [Ohm]	0.211	0.248	0.243	0.243	0.241