



RADIATION TEST SUMMARY

PART TYPE : 2N6796

DESCRIPTION : N-CHANNEL MOSFET

REPORT NO. : RD167

PARAMETERS PLOTTED :

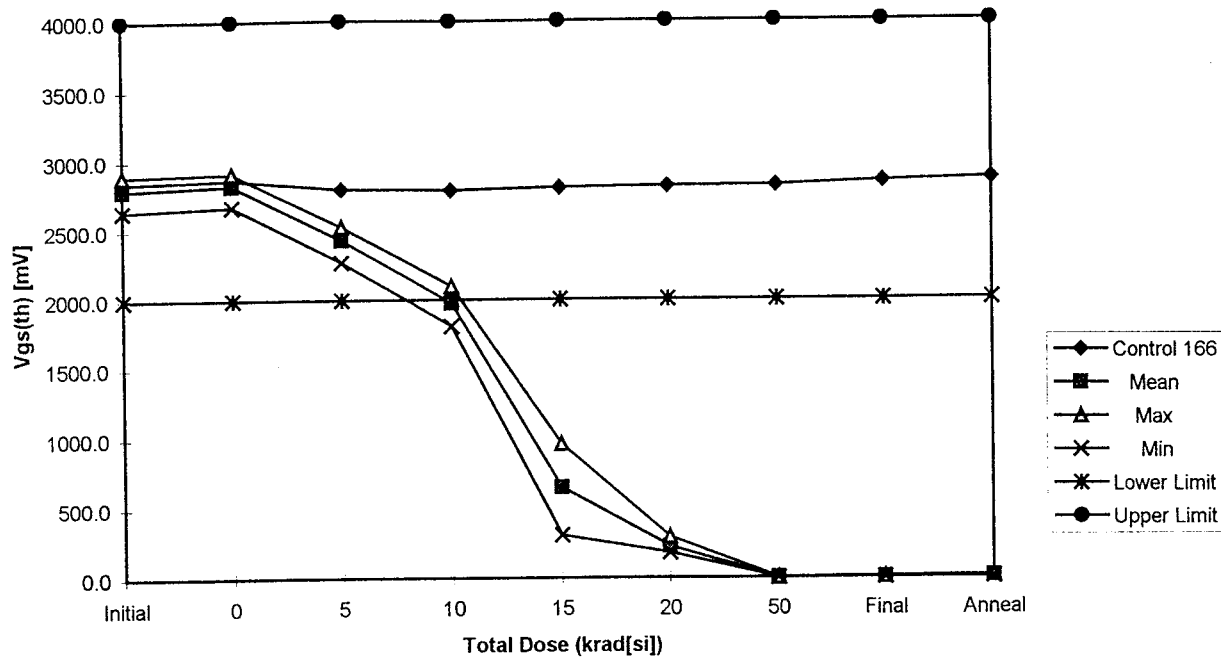
Vgs(th)
IDSS

NOTE :

The results for Igss and Rds(on) showed no significant change and hence plots were not considered necessary.
S/No. 183 failed V(BR)DSS at 10Krad, the remaining 3 parts failed at 15Krad



Radiation Results for 2N6796



Dose (kRad)	Control 166 (mV)	Mean (mV)	Max (mV)	Min (mV)	Lower Limit (mV)	Upper Limit (mV)	Std.Dev.
Initial	2843.5	2794.4	2891.2	2641.0	2000	4000	108.05
0	2865.5	2822.7	2913.7	2670.9	2000	4000	105.45
5	2794.6	2428.9	2524.3	2269.6	2000	4000	112.14
10	2785.2	1973.8	2093.8	1809.0	2000	4000	124.98
15	2799.1	653.0	966.6	306.3	2000	4000	330.44
20	2810.4	223.2	292.3	177.9	2000	4000	51.82
50	2817.4	1.1	1.7	0.6	2000	4000	0.55
Final	2843.4	1.9	4.8	0.2	2000	4000	2.02
Anneal	2859.1	3.5	8.8	0.0	2000	4000	4.26

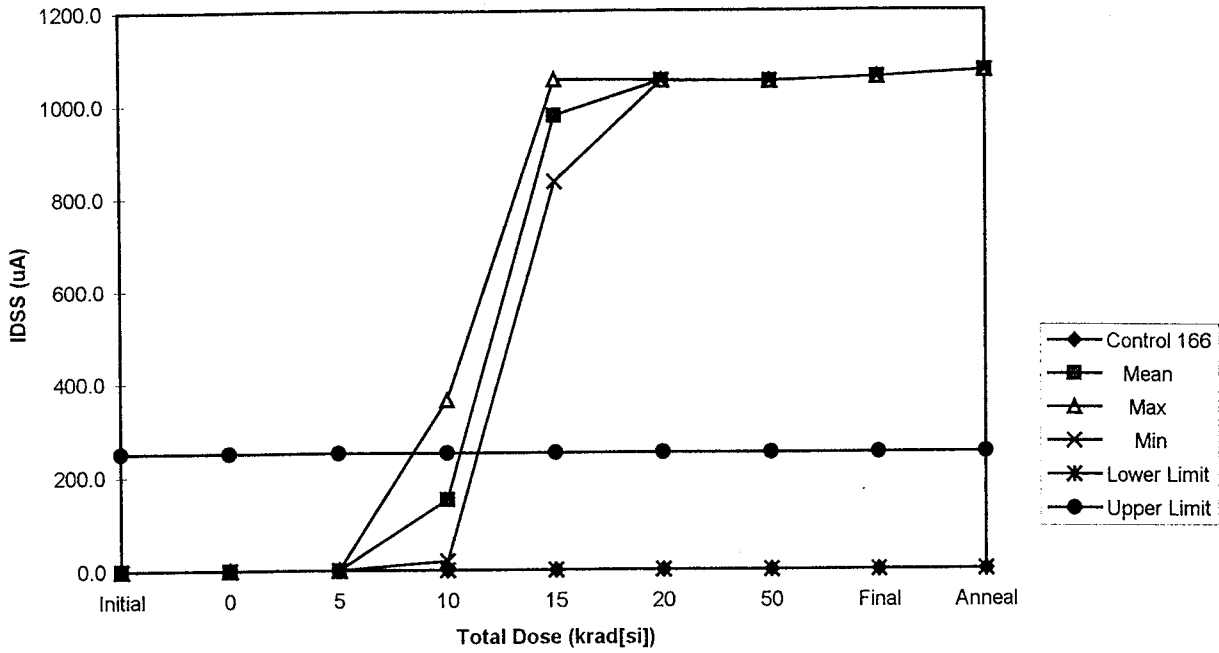
Lot size for statistics : 4 devices *

RD 167 Date Code: 9204A

* (3 devices at 50 Krad due to loss of data for S/No 183)



Radiation Results for 2N6796



Dose (kRad)	Control 166 (uA)	Mean (uA)	Max (uA)	Min (uA)	Lower Limit (uA)	Upper Limit (uA)	Std.Dev.
Initial	0.0	0.0	0.0	0.0	0	250	0.00
0	0.0	0.0	0.0	0.0	0	250	0.00
5	0.0	0.0	0.0	0.0	0	250	0.00
10	0.0	150.5	362.0	19.0	0	250	157.70
15	0.0	975.0	1052.0	833.0	0	250	103.26
20	0.0	1050.0	1050.0	1050.0	0	250	0.00
50	0.0	1048.7	1049.0	1048.0	0	250	0.58
Final	0.0	1057.0	1057.0	1057.0	0	250	0.00
Anneal	0.0	1070.0	1070.0	1070.0	0	250	0.00

Lot size for statistics : 4 devices *

RD 167 Date Code: 9204A

* (3 devices at 50 Krad due to loss of data for S/No. 183)

SZ-TESTSYSTEME Family Testadaptor TA07F 07.06.91 / 14:25:48

ZN6796 P0-PL-166-PL-0006 ISS 3 / 1.1 SMR 11/12/95

Socket adapter type: SA07.03

Fets per device : 1 (N)

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          1.000 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)... 0.100  Ohm
Switch : off        | Pin assignment : 1
VGS         10.000 V | ID           5000.000 mA |
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Results file : 2N6796_RD167_INIT_EMS_@_I66. from: 12.01.96 / 15:55:16
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9204A.
Order number : RIR 64018.
Vendor : IR.
: S/Nos. 175,183,187,191 : Control S/No 166.
: TEST #3 INIT ELEC MEAS AT I66.
: 2N6796 PO-PL-I66-PL-0006 ISS 3 / 1.1 SMR 11/12/95.

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)...		0.180	Ohm

	166	175	183	187	191
1.1 [V]	118.6	122.0	118.1	117.8	119.0
2.1 [mV]	2843.5	2838.9	2891.2	2641.0	2806.3
3.1 [nA]	1.3	1.3	1.3	1.3	1.4
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.140	0.147	0.146	0.146	0.146

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

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Results file   : 2N6796_RD167_INIT_@_ERA   from: 06.03.70 / 20:50:43
Operator      : Steve Young.
Part number   : 2N6796.
Lot number    : Date Code 9204A.
Order number  : RIR 64018.
Vendor       : IR.
              : S/Nos. 175,183,187,191 : Control S/No 166.
              : TEST #4 INIT ELEC MEAS AT ERA.
              : 2N6796 PO-PL-I66-PL-0006 ISS 3 / 1.1 SMR 11/12/95.
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Test steps

1.	V(BR)DSS	100.0	...	700.0	V
2.	V6S	2000.0	...	4000.0	mV
3.	IGSS (FWD)	(0.0)	...	100.0	nA
4.	IDSS	(0)	...	250	uA
5.	RDS on	(0.000)	...	0.180	Ohm

	166	175	183	187	191
1.1 [V]	118.2	121.7	117.6	117.0	118.4
2.1 [mV]	2865.5	2862.8	2913.7	2670.9	2843.4
3.1 [nA]	0.0	0.0	0.0	0.0	0.0
4.1 [uA]	0	0	0	0	0
5.1 [Ohm]	0.135	0.144	0.143	0.141	0.142

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

=====
Results file : 2N6796_RD167_EMS @_10_KRAD from: 06.03.70 / 21:49:09
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9204A.
Order number : RIR 64018.
Vendor : IR.
: S/Nos. 175,183,187,191 : Control S/No 166.
: TEST #7(ii) EMS @ 10 KRADs.
: 2N6796 PO-PL-IGG-PL-0006 ISS 3 / 1.1 SMR 11/12/95.
=====

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)	...	0.180	Ohm

	166	175	183	187	191
1.1 [V]	119.9	120.8	0.6 F	117.4	118.0
2.1 [mV]	2785.2	2093.8	1949.9 F	1809.0 F	2042.6
3.1 [nA]	1.1	1.1	1.1	1.1	1.1
4.1 [uA]	0	19	362 F	179	42
5.1 [Ohm]	0.157	0.141	0.143	0.142	0.136

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

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Results file   : ZN6796_RD167_EMS_@_15_KRAD   from: 06.03.70 / 22:09:52
Operator      : Steve Young.
Part number   : ZN6796.
Lot number    : Date Code 9204A.
Order number  : RIR 64018.
Vendor       : IR.
              : S/Nos. 175,183,187,191 : Control S/No 166.
              : TEST #7(iii) EMS @ 15 KRADs.
              : ZN6796 PO-PL-IG6-PL-0005 ISS 3 / 1.1 SMR 11/12/95.
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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)	...	0.180	Ohm

	166		175		183		187		191	
1.1 [V]	119.9		0.3	FI	0.3	FI	0.3	FI	0.4	FI
2.1 [mV]	2799.1		966.6	FI	306.3	FI	436.6	FI	902.4	FI
3.1 [nA]	1.2		1.1		1.1		1.1		1.1	
4.1 [uA]	0		833	FI	1052	FI	1051	FI	964	FI
5.1 [Ohm]	0.146		0.140		0.140		0.134		0.136	

Results file : 2N6796_RD167_EMS_@_20_KRAD from: 06.03.70 / 23:00:02
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9204A.
Order number : RIR 64010.
Vendor : IR.
: 5/Nos. 175,183,187,191 : Control S/No 166.
: TEST #7(iv) EMS @ 20 KRADs.
: 2N6796 PO-PL-I66-PL-0006 ISS 3 / 1.1 SMR 11/12/95.

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)	...	0.180	Ohm

	166		175		183		187		191	
1.1 [V]	119.4		0.2	F	0.3	F	0.1	F	0.2	F
2.1 [mV]	2810.4		189.5	F	177.9	F	232.9	F	292.3	F
3.1 [nA]	1.2		1.1		1.1		1.1		1.1	
4.1 [uA]	0		1050	F	1050	F	1050	F	1050	F
5.1 [Ohm]	0.148		0.139		0.143		0.148		0.138	

	166		175		183		187		191	
1.1 [V]	119.4		0.2	F	0.3	F	0.1	F	0.2	F
2.1 [mV]	2810.4		189.5	F	177.9	F	232.9	F	292.3	F
3.1 [nA]	1.2		1.1		1.1		1.1		1.1	
4.1 [uA]	0		1050	F	1050	F	1050	F	1050	F
5.1 [Ohm]	0.148		0.139		0.143		0.148		0.138	

	166	175	187	191
1.1 [V]	119.5	0.3 FI	0.3 FI	0.2 FI
2.1 [mV]	2817.4	0.6 FI	1.7 FI	1.1 FI
3.1 [nA]	1.2	1.1	1.1	1.1
4.1 [uA]	0	1048 FI	1049 FI	1049 FI
5.1 [Ohm]	0.149	0.135	0.133	0.139

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Results file : 2N6796_RD167_POST_RAD_FINAL_EMS from: 26.01.96 / 17:26:31
Operator : I ROBINS
Part number : 2N6796
Lot number : RIR 64018
Order number : D/C 6204A
Vendor : IR
: SERIAL NUMBERS 175,183,187,191 CONTROL SERIAL NUMBER=166
: TEST POST RAD ROOM TEMP 168HR ANNEAL EMS TA07B SA07.03
: 2N6796 PO-PL-I66-PL-0006 ISS 3 / 1.1 SMR 11/12/95
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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)... 0.180 Ohm

	166	175	183	187	191	166
1.1 [V]	118.2	0.4 FI	0.3 FI	0.2 FI	0.3 FI	118.2
2.1 [mV]	2859.1	5.1 FI	0.1 FI	0.0 FI	8.8 FI	2859.0
3.1 [nA]	1.1	1.1	1.1	1.1	1.1	1.2
4.1 [uA]	0	1070 FI	1070 FI	1070 FI	1070 FI	0
5.1 [Ohm]	0.140	0.137	0.140	0.133	0.132	0.137