



RADIATION TEST SUMMARY

PART TYPE : 2N6796
DESCRIPTION : N-CHANNEL MOSFET
REPORT NO. : RD 166

PARAMETERS PLOTTED :

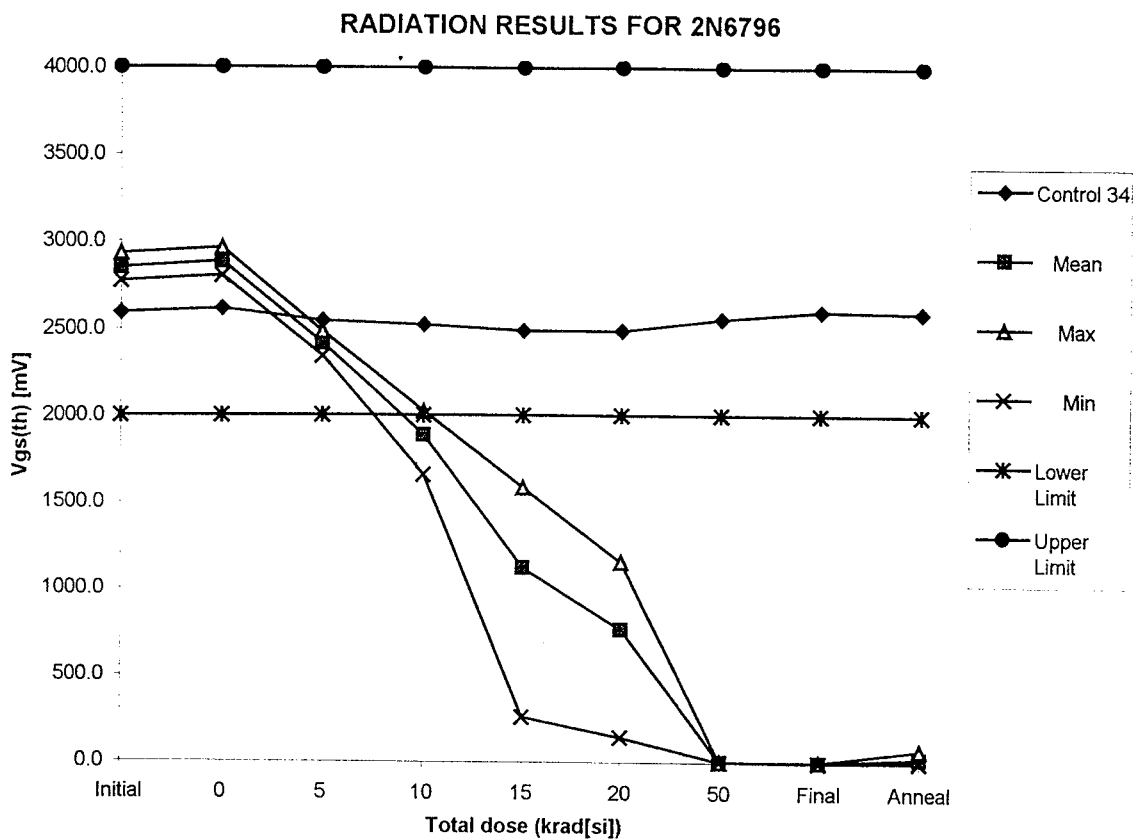
Vgs(th)
BV(dss)
IDSS

NOTE :

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

Specification no. PO-PL-IGG-PL-0006 Iss.3 Appendix 1.

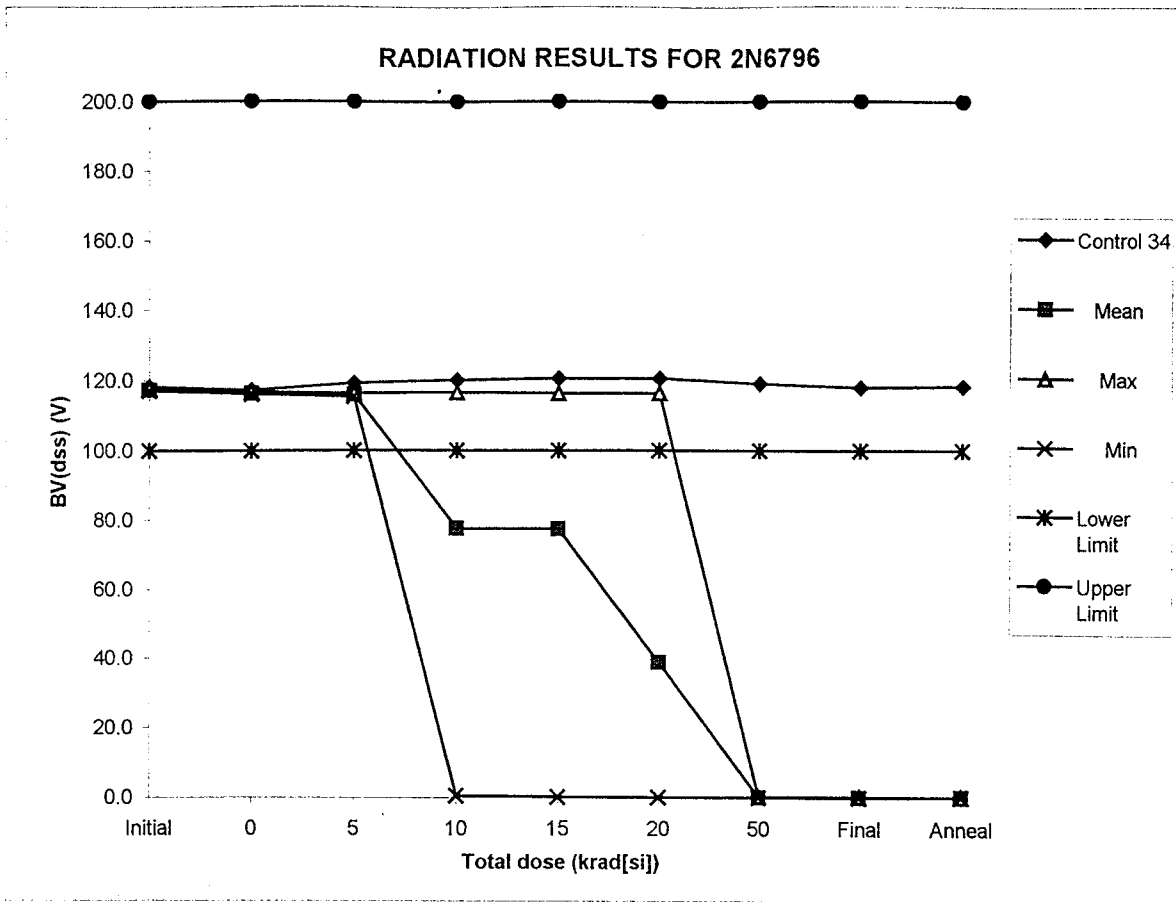
S/No 38 failed functionally at 0KRad and was therefore not included in the irradiation sequence. See NCR N60388



Dose (kRad)	Control 34 (mV)	Mean (mV)	Max (mV)	Min (mV)	Lower Limit (mV)	Upper Limit (mV)	Std.Dev.
Initial	2588.6	2850.4	2930.8	2770.4	2000	4000	80.20
0	2612.8	2882.3	2958.6	2801.8	2000	4000	78.48
5	2541.1	2413.0	2481.5	2338.4	2000	4000	71.74
10	2519.6	1884.4	2020.8	1657.4	2000	4000	197.89
15	2486.6	1120.3	1581.4	258.7	2000	4000	746.76
20	2488.9	767.7	1153.2	142.6	2000	4000	546.27
50	2554.0	2.9	4.0	1.9	2000	4000	1.05
Final	2597.3	1.8	2.4	0.9	2000	4000	0.79
Anneal	2588.6	27.5	72.9	3.2	2000	4000	39.35

Lot size for statistics : 3 devices

RD 166 Date code 9248C

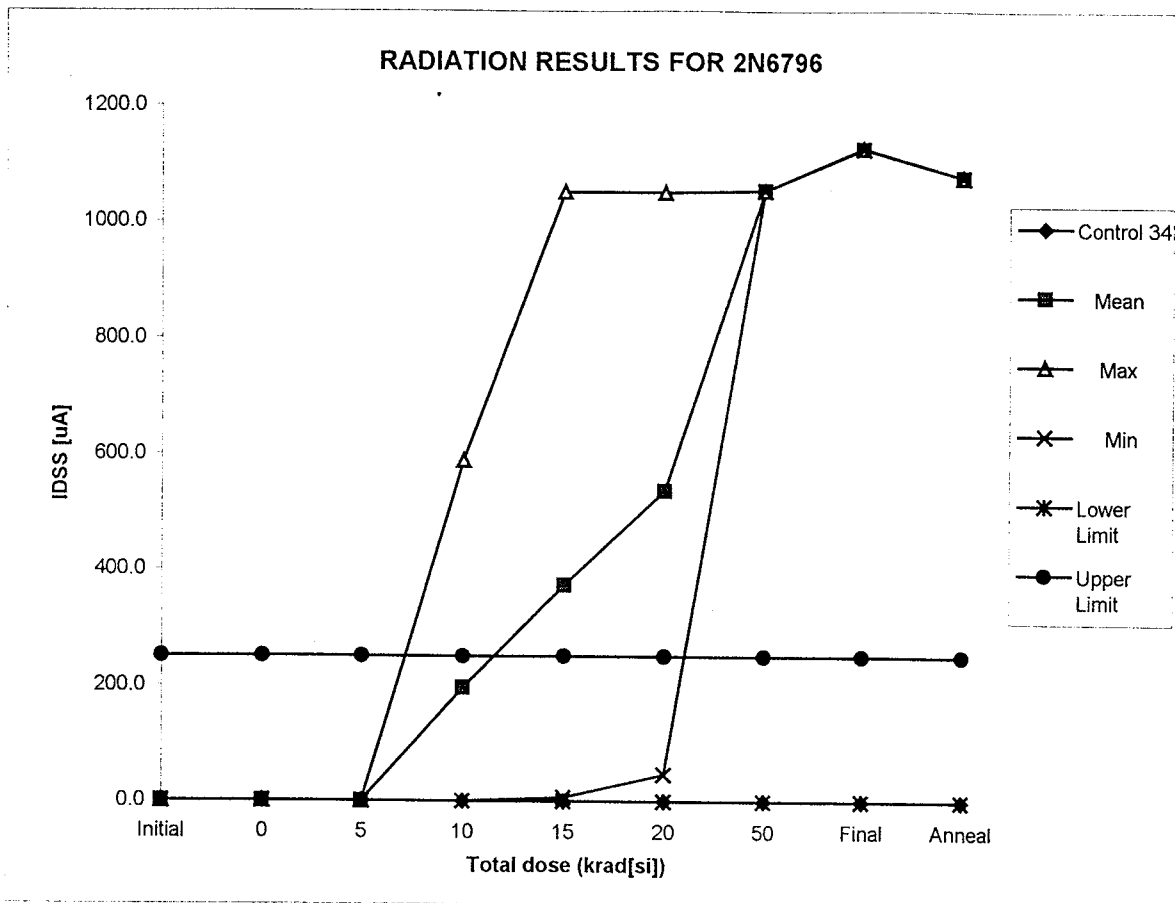


Dose (kRad)	Control 34 (V)	Mean (V)	Max (V)	Min (V)	Lower Limit (V)	Upper Limit (V)	Std.Dev.
Initial	118.2	117.3	117.6	117.1	100	200	0.26
0	117.3	116.4	116.7	116.1	100	200	0.30
5	119.3	116.0	116.4	115.5	100	200	0.46
10	120.0	77.5	116.6	0.5	100	200	66.72
15	120.5	77.4	116.4	0.2	100	200	66.86
20	120.5	39.0	116.3	0.1	100	200	66.97
50	119.1	0.2	0.3	0.1	100	200	0.12
Final	118.0	0.2	0.3	0.1	100	200	0.10
Anneal	118.3	0.3	0.4	0.3	100	200	0.06

NOTE :- Upper limit of 200 V is for reference only , NOT A REAL LIMIT !!.

Lot size for statistics : 3 devices

RD 166 Date code 9248C



Dose (kRad)	Control 34 (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	196.3	588.0	0.0	0	250	339.19
15	0.0	373.0	1051.0	7.0	0	250	587.79
20	0.0	536.0	1050.0	46.0	0	250	502.43
50	0.0	1053.0	1053.0	1053.0	0	250	0.00
Final	0.0	1125.3	1126.0	1125.0	0	250	0.58
Anneal	0.0	1077.0	1077.0	1077.0	0	250	0.00

Lot size for statistics : 3 devices

RD 166 Date code 9248C

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

ZN6795 P0-PL-IG6-PL-0006 ISS 1 / 1.0 SMR 24/10/95

Socket adapter type: SA07.03

Fets per device : 1 (N)

Pin assignment : 1

```
=====
 1. V(BR)DSS          100.0 ... 700.0 V
Switch : off         | Pin assignment : 1
ID          0.250 mA |
-----
 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 |
-----
 5. RDS on           ( 0.000 )... 0.190 Ohm
Switch : off         | Pin assignment : 1
VGS         10.000 V | ID            5000.000 mA |
=====
```

=====
Results file : 2N6796_RD_.INIT_EMS_@_IG6 from: 12.01.96 / 15:29:05
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #3 INIT ELEC MEAS AT I66.
: 2N67964 PO-PL-IG6-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)	...	0.100	Ohm

=====
Results file : ZN6796_63095_INITIAL_EMS @_ERA from: 03.03.70 / 21:16:47
Operator : Steve Young.
Part number : ZN6796.
Lot number : Date Code 92480.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #4 INIT ELEC MEAS AT ERA.
: ZN67964 P0-PL-IG6-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

	34	35	36	6	37	38
1.1 [V]	117.3	116.4	116.7		116.1	0.4 F
2.1 [mV]	2612.8	2801.8	2958.6		2886.4	99.1 F
3.1 [nA]	0.1	0.1	0.1		0.1	128.2 F
4.1 [uA]	0	0	0		0	1108 F
5.1 [Ohm]	0.134	0.137	0.134		0.133	0.138

=====
Results file : 2N6796_63095_EMS_0_5_KRAD from: 03.03.70 / 21:28:11
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #7(i) EMS AT 5 KRAD.
: 2N67964 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

	34	35	36	37	38
1.1 [V]	119.3	116.1	116.4	115.5	0.7 FI
2.1 [mV]	2541.1	2338.4	2481.5	2419.1	202.1 FI
3.1 [nA]	0.8	0.8	0.8	0.8	129.4 FI
4.1 [uA]	0	0	0	0	0.63 FI
5.1 [Ohm]	0.149	0.137	0.129	0.131	0.135

=====
Results file : 2N6796_63095_EMS_@_10_KRAD from: 03.03.70 / 21:55:51
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #7(ii) EMS AT 10 KRAD.
: 2N67964 PO-PL-IG6-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

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	34	35	36	10	37	38
1.1 [V]	120.0	0.5 FI	116.6		115.5	0.5 FI
2.1 [mV]	2519.6	1657.4 FI	2020.8		1974.9	174.7 FI
3.1 [nA]	0.9	0.8	0.9		0.9	129.5 FI
4.1 [uA]	0	588 FI	0		1	1054 FI
5.1 [Ohm]	0.153	0.145	0.132		0.130	0.137

=====
Results file : 2N6796_63095_EMS_@_15_KRAD from: 03.03.70 / 22:25:59
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #7(iii) EMS AT 15 KRAD.
: 2N67964 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

	34	35	36	12	37	38
1.1 [V]	120.5	0.2	116.4		115.6	0.1
2.1 [mV]	2486.6	258.7	1581.4		1520.7	119.4
3.1 [nA]	1.0	0.9	0.9		0.9	129.5
4.1 [uA]	0	1051	7		61	1051
5.1 [Ohm]	0.154	0.135	0.129		0.131	0.134

=====
Results file : 2N6796_63095_EMS_@_20_KRAD from: 03.03.70 / 22:55:45
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #7(iv) EMS AT 20 KRAD.
: 2N67964 PO-PL-IGG-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

	34	35	36	14	37	38
1.1 [V]	120.5	0.1	116.3	0.5	0.2	
2.1 [mV]	2488.9	142.6	1153.2	1007.4	79.9	
3.1 [nA]	1.0	0.9	0.9	0.9	129.5	
4.1 [uA]	0	1050	46	512	1050	
5.1 [Ohm]	0.156	0.129	0.132	0.127	0.132	

=====
Results file : 2N6796_63095_EMS@_50_KRAD from: 03.03.70 / 23:25:53
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 92480.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #7(v) EMS AT 50 KRAD.
: 2N67964 PO-PL-IG6-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

	34	35	36	16	37	38
1.1 [V]	119.1	0.1	0.1		0.3	0.2
2.1 [mV]	2554.0	2.8	4.0		1.9	4.0
3.1 [nA]	0.9	0.9	0.8		0.8	129.4
4.1 [uA]	0	1053	1053		1053	1053
5.1 [Ohm]	0.144	0.128	0.124		0.127	0.141

=====
Results file : 2N6796_63095_END_POINT_EMS from: 04.03.70 / 23:22:26
Operator : Steve Young.
Part number : 2N6796.
Lot number : Date Code 9248C.
Order number : RIR 63095.
Vendor : IR.
: S/NOS. 35,36,37,38 CONTROL S/No.34.
: TEST #8 END POINT EMS.
: 2N67964 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

	34	35	36	37	38
1.1 [V]	118.0	0.1	0.2	0.3	0.3
2.1 [mV]	2597.3	0.9	2.4	2.1	0.3
3.1 [nA]	0.1	0.1	0.1	0.1	128.0
4.1 [uA]	0	1126	1125	1125	1124
5.1 [Ohm]	0.140	0.129	0.130	0.131	0.130

=====

Results file : /3095_2N6796_FINAL_EMS from: 23.01.96 / 15:58:55
Operator : S.M.RALPHS
Part number : 2N6796
Lot number : D/C 9248C
Order number : RD 166 RIR 63095
Vendor : IR
: S/NOS.35,36,37,38 CONTROL S/NO.34
: TEST #25 FINAL ELEC MEAS AT IGG
: 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

	34	35	36	20	37	38
1.1 [V]	118.3	0.3 F	0.3 F		0.4 F	0.3 F
2.1 [mV]	2588.6	6.4 F	72.9 F		3.2 F	4.0 F
3.1 [nA]	1.1	1.1	1.1		1.1	129.8 F
4.1 [uA]	0	1077 F	1077 F		1077 F	1076 F
5.1 [Ohm]	0.137	0.130	0.134		0.133	0.133