DIODES, REFERENCE/TRANSIENT SUPPRESSOR, BASED ON TYPES 1N5555 TO 1N5558, 1N5629A TO 1N5665A AND 1N5907

ESCC Detail Specification No. 5107/001

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space components
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		SCCG Chairman	ESA Director General or his Deputy
Issue 3	October 1982	-	-
Revision 'A'	September 1986	-	
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DOCUMENTATION CHANGE NOTICE

Rev. Letter	Rev. Date	Reference	CHANGE Item	Approved DCR No.
		This issue supersedes Issue 2 and incorporates all modifications agreed on the basis of Policy DCR 21022 for adaptation to new ESA/SCC Generic Specification No. 5000, Issue 4, April 1982 requirements and of the following DCR's:-		
		Table 1(a)	: Dash Nos. -21 and -22, column 8 limit changed	22180
			: All options in the range 1N5629A to 1N5665A added	22180
		Para. 4.2.3	: Para. 7.7.1 corrected to 7.1.1	22180
		Para. 4.4.2	: Lead material changed to type W	22180
		Table 3	: Note 2 extended	22180
		Table 4	: Note 2 extended	22180
		Table 5	: Conditions amended and note added	22180
		New page added	: Appendix 'A', agreed deviations for GSI (USA)	24024
'A'	Sept. '86	P1. Cover Page		None
		P2. DCN		None
		P18. Table 5	: Item 1, T_{amb} to read +125(+0-3) °C	23265
'B'	July '93	P1. Cover page		None
		P2. DCN		None
		P5. Para. 1.7	: Text standardised	21025
		Para. 2	: MIL-STD-1276 deleted	21025
		P6. Para. 4.2.2	: PIND deviation deleted, subsequent deviations renumbered	21043
		Para. 4.2.3	: Radiographic Inspection deviation deleted	21049
		P7. Table 1(a)	: "Lead material and/or Finish" column amended	21025
		P8. Table 1(a)	: "Lead material and/or Finish" column amended	21025
		P9. Table 1(a)	: "Lead material and/or Finish" column amended	21025
		P13. Para. 4.4.2	: Paragraph amended	21025
		P17. Table 3	: Note 4 deleted	21047

DOCUMENTATION CHANGE NOTICE

Rev. Letter	Rev. Date	CHANGE Reference Item	Approved DCR No.
'C'	Nov. '95	P1. Cover page P2A. DCN : Page added P17. Table 3 : Note 3 corrected This document has been transferred from hardcopy to electronic format. The content is unchanged but minor differences in presentation exist.	None None 23757
'D'	Aug. '96	P1. Cover page P2A. DCN P5. Para. 1.7 : Paragraph amended	None None 21083

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APPENDICES (Applicable to specific Manufacturers only)

1. GENERAL

1.1 SCOPE

This specification details the ratings, physical and electrical characteristics, test and inspection data for Diodes, Reference/Transient Suppressor, Based on Types 1N5555 to 1N5558, 1N5629A to 1N5665A, and 1N5907.

It shall be read in conjunction with ESA/SCC Generic Specification No. 5000, the requirements of which are supplemented herein.

1.2 COMPONENT TYPE VARIANTS

Variants of the basic diodes specified herein, which are also covered by this specification, are listed in Table 1(a).

1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the diodes specified herein, are scheduled in Table 1(b).

1.4 PARAMETER DERATING INFORMATION

The derating information applicable to the diodes specified herein is shown in Figure 1.

1.5 PHYSICAL DIMENSIONS

The physical dimensions of the diodes specified herein are shown in Figure 2.

1.6 FUNCTIONAL DIAGRAM

The functional diagram, showing lead identification, of the diodes specified herein, is shown in Figure 3.

1.7 HIGH TEMPERATURE TEST PRECAUTIONS

For tin-lead plated or solder-dipped lead finish, all tests to be performed at a temperature that exceeds +125°C shall be carried out in 100% inert atmosphere.

2. APPLICABLE DOCUMENTS

The following documents form part of this specification and shall be read in conjunction with it:-

(a) ESA/SCC Generic Specification No. 5000 for Discrete Semiconductors.

(b) MIL-STD-750, Test Methods and Procedures for Semiconductor Devices.

(d) MIL-STD-105, Sampling Procedures and Tables for Inspection by Attributes.

(e) MIL-STD-883, Test Methods and Procedures for Microelectronics.

3. TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESA/SCC Basic Specification No. 21300 shall apply. In addition, the following abbreviation is used:-

V_C = Clamping Voltage.
I_{pp} = Peak Pulse Current.

4. REQUIREMENTS

4.1 GENERAL

The complete requirements for procurement of the diodes specified herein are stated in this specification and ESA/SCC Generic Specification No. 5000 for Discrete Semiconductors. Deviations from the Generic Specification applicable to this specification only, are listed in Para. 4.2.

Deviations from the applicable Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESA/SCC requirements and do not affect the components' reliability, are listed in the appendices attached to this specification.

4.2 DEVIATIONS FROM GENERIC SPECIFICATION

4.2.1 Deviations from Special In-process Controls

None.

4.2.2 Deviations from Final Production Tests (Chart II)

(a) Para. 9.2.1, Bond Strength Test: Shall not be performed.

(b) Para. 9.2.2, Die Shear Test: Not applicable.

4.2.3 Deviations from Burn-in Tests (Chart III)

(a) Para. 7.1.1(a), High Temperature Reverse Bias Test: Shall not be performed.

4.2.4 Deviations from Qualification, Environmental and Endurance Tests (Chart IV)

(a) Bond Strength and Die ShearTests: Shall not be performed.

4.2.5 Deviations from Lot Acceptance Tests (Chart V)

None.

TABLE 1(a) - TYPE VARIANTS

(1) Variant	(2) Based on Type	(3) Lead Material and Finish	(4) I_R (µA)	(5) V_R (V)	(6) BV_{MIN} at I_R		(7) V_C (V)	(8) I_{pp} (A)	(9) BV_{MIN} at -55 °C (V)
					(V)	(mA)			
01	1N5555	L2	5.0	30.5	33.0	1.0	47.5	32	30.2
02	1N5555	L3 or L4	5.0	30.5	33.0	1.0	47.5	32	30.2
03	1N5556	L2	5.0	40.3	43.7	1.0	63.5	24	40.0
04	1N5556	L3 or L4	5.0	40.3	43.7	1.0	63.5	24	40.0
05	1N5557	L2	5.0	49.0	54.0	1.0	78.5	19	48.5
06	1N5557	L3 or L4	5.0	49.0	54.0	1.0	78.5	19	48.5
07	1N5558	L2	5.0	175.0	191.0	1.0	265.0	5.7	172.0
08	1N5558	L3 or L4	5.0	175.0	191.0	1.0	265.0	5.7	172.0
09	1N5629A	L2	1000	5.8	6.45	10	10.5	143	6.05
10	1N5629A	L3 or L4	1000	5.8	6.45	10	10.5	143	6.05
11	1N5636A	L2	5.0	11.1	12.4	1.0	18.2	82	11.3
12	1N5636A	L3 or L4	5.0	11.1	12.4	1.0	18.2	82	11.3
13	1N5648A	L2	5.0	36.8	40.9	1.0	59.3	25.3	36.4
14	1N5648A	L3 or L4	5.0	36.8	40.9	1.0	59.3	25.3	36.4
15	1N5653A	L2	5.0	58.1	64.4	1.0	92.0	16.3	57.3
16	1N5653A	L3 or L4	5.0	58.1	64.4	1.0	92.0	16.3	57.3
17	1N5660A	L2	5.0	111.0	124.0	1.0	179.0	8.4	109.0
18	1N5660A	L3 or L4	5.0	111.0	124.0	1.0	179.0	8.4	109.0
19	1N5665A	L2	5.0	171.0	190.0	1.0	274.0	5.5	167.0
20	1N5665A	L3 or L4	5.0	171.0	190.0	1.0	274.0	5.5	167.0
21	1N5907	L2	300	5.0	6.0	1.0	8.5	120	5.63
22	1N5907	L3 or L4	300	5.0	6.0	1.0	8.5	120	5.63

TABLE 1(a) - TYPE VARIANTS (CONT'D)

(1) Variant	(2) Based on Type	(3) Lead Material and Finish	(4) I_R (µA)	(5) V_R (V)	(6) BV_{MIN} at I_R		(7) V_C (V)	(8) I_{pp} (A)	(9) BV_{MIN} at -55 °C (V)
					(V)	(mA)			
23	1N5644A	L2	5.0	25.6	28.5	1.0	41.4	36	23.5
24	1N5644A	L3 or L4	5.0	25.6	28.5	1.0	41.4	36	23.5
25	1N5649A	L2	5.0	40.2	44.7	1.0	64.8	23.2	39.8
26	1N5649A	L3 or L4	5.0	40.2	44.7	1.0	64.8	23.2	39.8
27	1N5630A	L2	500	6.4	7.13	10	11.3	132	6.66
28	1N5630A	L3 or L4	500	6.4	7.13	10	11.3	132	6.66
29	1N5631A	L2	200	7.02	7.79	10	12.1	124	7.24
30	1N5631A	L3 or L4	200	7.02	7.79	10	12.1	124	7.24
31	1N5632A	L2	50	7.78	8.65	1.0	13.4	112	8.01
32	1N5632A	L3 or L4	50	7.78	8.65	1.0	13.4	112	8.01
33	1N5633A	L2	10	8.55	9.50	1.0	14.5	103	8.75
34	1N5633A	L3 or L4	10	8.55	9.50	1.0	14.5	103	8.75
35	1N5634A	L2	5.0	9.40	10.50	1.0	15.6	96	9.65
36	1N5634A	L3 or L4	5.0	9.40	10.50	1.0	15.6	96	9.65
37	1N5635A	L2	5.0	10.2	11.4	1.0	16.7	90	10.4
38	1N5635A	L3 or L4	5.0	10.2	11.4	1.0	16.7	90	10.4
39	1N5637A	L2	5.0	12.8	14.3	1.0	21.2	71	13.0
40	1N5637A	L3 or L4	5.0	12.8	14.3	1.0	21.2	71	13.0
41	1N5638A	L2	5.0	13.6	15.2	1.0	22.5	67	13.7
42	1N5638A	L3 or L4	5.0	13.6	15.2	1.0	22.5	67	13.7
43	1N5639A	L2	5.0	15.3	17.1	1.0	25.2	59.5	15.4
44	1N5639A	L3 or L4	5.0	15.3	17.1	1.0	25.2	59.5	15.4
45	1N5640A	L2	5.0	17.1	19.0	1.0	27.7	54	17.1
46	1N5640A	L3 or L4	5.0	17.1	19.0	1.0	27.7	54	17.1
47	1N5641A	L2	5.0	18.8	20.9	1.0	30.6	49	18.8
48	1N5641A	L3 or L4	5.0	18.8	20.9	1.0	30.6	49	18.8
49	1N5642A	L2	5.0	20.5	22.8	1.0	33.2	45	20.5
50	1N5642A	L3 or L4	5.0	20.5	22.8	1.0	33.2	45	20.5
51	1N5643A	L2	5.0	23.1	25.7	1.0	37.5	40	23.0
52	1N5643A	L3 or L4	5.0	23.1	25.7	1.0	37.5	40	23.0
53	1N5645A	L2	5.0	28.2	31.4	1.0	45.7	33	28.0
54	1N5645A	L3 or L4	5.0	28.2	31.4	1.0	45.7	33	28.0
55	1N5646A	L2	5.0	30.8	34.2	1.0	49.9	30	30.5
56	1N5646A	L3 or L4	5.0	30.8	34.2	1.0	49.9	30	30.5

TABLE 1(a) - TYPE VARIANTS (CONT'D)

(1) Variant	(2) Based on Type	(3) Lead Material and Finish	(4) I_R (µA)	(5) V_R (V)	(6) BV_{MIN} at I_R		(7) V_C (V)	(8) I_{pp} (A)	(9) BV_{MIN} at -55 °C (V)
					(V)	(mA)			
57	1N5647A	L2	5.0	33.3	37.1	1.0	53.9	28	33.1
58	1N5647A	L3 or L4	5.0	33.3	37.1	1.0	53.9	28	33.1
59	1N5650A	L2	5.0	43.6	48.5	1.0	70.1	21.4	43.1
60	1N5650A	L3 or L4	5.0	43.6	48.5	1.0	70.1	21.4	43.1
61	1N5651A	L2	5.0	47.8	53.2	1.0	77.0	19.5	47.3
62	1N5651A	L3 or L4	5.0	47.8	53.2	1.0	77.0	19.5	47.3
63	1N5652A	L2	5.0	53.0	58.9	1.0	85.0	17.7	52.3
64	1N5652A	L3 or L4	5.0	53.0	58.9	1.0	85.0	17.7	52.3
65	1N5654A	L2	5.0	64.1	71.3	1.0	103	14.6	63.2
66	1N5654A	L3 or L4	5.0	64.1	71.3	1.0	103	14.6	63.2
67	1N5655A	L2	5.0	70.1	77.9	1.0	113	13.3	69.0
68	1N5655A	L3 or L4	5.0	70.1	77.9	1.0	113	13.3	69.0
69	1N5656A	L2	5.0	77.8	86.5	1.0	125	12.0	76.5
70	1N5656A	L3 or L4	5.0	77.8	86.5	1.0	125	12.0	76.5
71	1N5657A	L2	5.0	85.5	95	1.0	137	11.0	84.1
72	1N5657A	L3 or L4	5.0	85.5	95	1.0	137	11.0	84.1
73	1N5658A	L2	5.0	94.0	105	1.0	152	9.9	92.8
74	1N5658A	L3 or L4	5.0	94.0	105	1.0	152	9.9	92.8
75	1N5659A	L2	5.0	102	114	1.0	165	9.1	100.0
76	1N5659A	L3 or L4	5.0	102	114	1.0	165	9.1	100.0
77	1N5661A	L2	5.0	128	143	1.0	207	7.2	126.0
78	1N5661A	L3 or L4	5.0	128	143	1.0	207	7.2	126.0
79	1N5662A	L2	5.0	136	152	1.0	219	6.8	134.0
80	1N5662A	L3 or L4	5.0	136	152	1.0	219	6.8	134.0
81	1N5663A	L2	5.0	145	162	1.0	234	6.4	143.0
82	1N5663A	L3 or L4	5.0	145	162	1.0	234	6.4	143.0
83	1N5664A	L2	5.0	154	171	1.0	246	6.1	151.0
84	1N5664A	L3 or L4	5.0	154	171	1.0	246	6.1	151.0

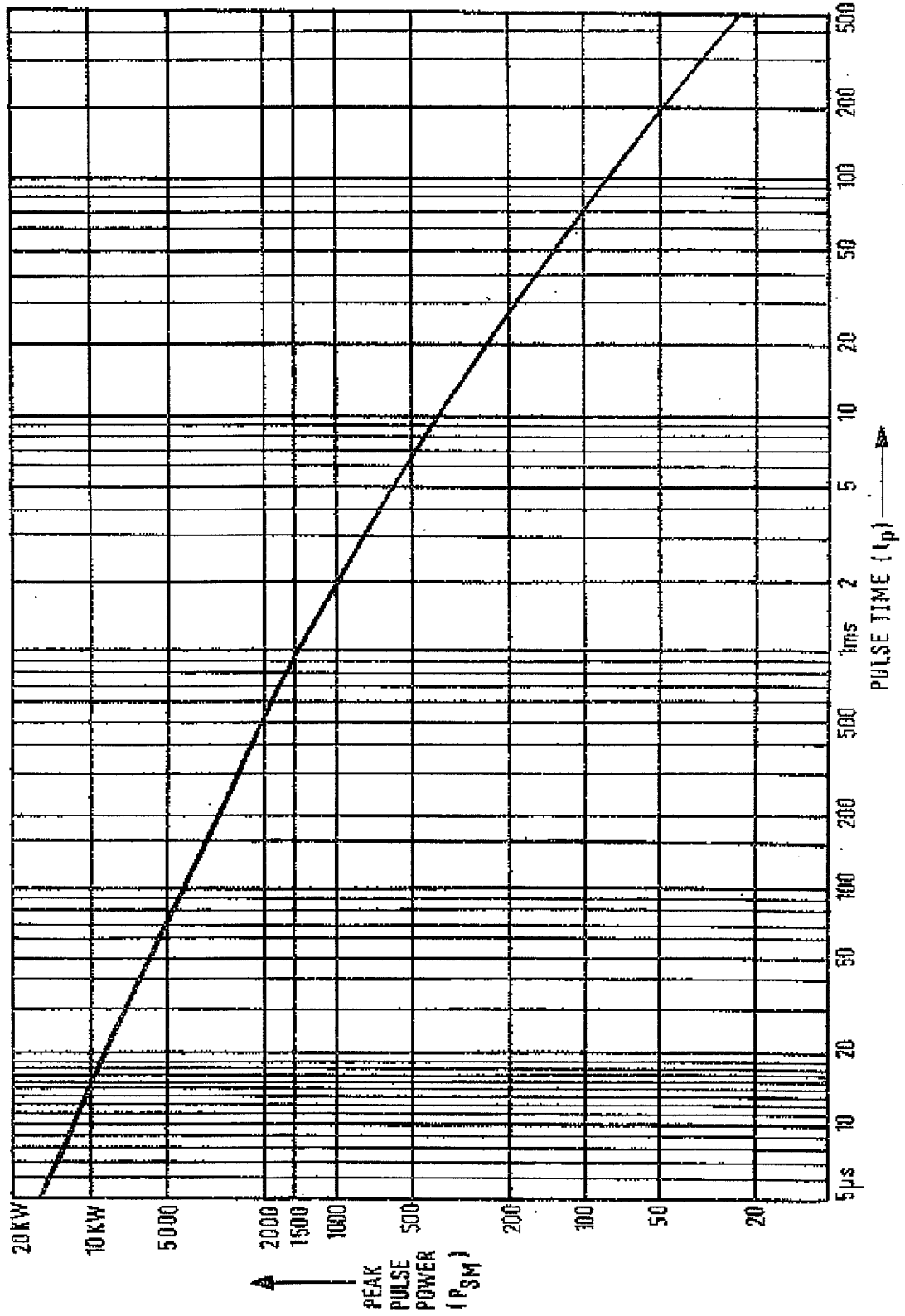
TABLE 1(b) - MAXIMUM RATINGS

No.	CHARACTERISTIC	SYMBOL	MAXIMUM RATING	UNIT	NOTES
1	Forward Surge Current	I_{FSM}	200	A	1
2	Peak Pulse Power Dissipation	P_{SM}	1500	W	2
3	Steady State Power Dissipation	P_{tot}	1.0	W	-
4	Operating Temperature Range	T_{op}	−55 to +175	°C	T_{amb}
5	Storage Temperature Range	T_{stg}	−65 to +175	°C	
6	Soldering Temperature	T_{sol}	+260	°C	3

NOTES

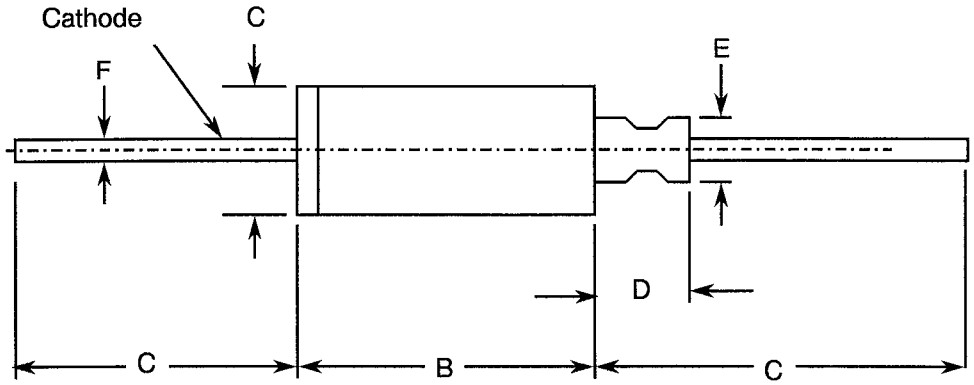
1. Maximum duration: 8.3ms.
2. Maximum duration: 1.0ms. For curve of P_{SM} versus pulse time, see Figure 1.
3. Duration 10 seconds maximum at a distance of not less than 1.5mm form the body, the same lead shall not be resoldered until three minutes have elapsed.

FIGURE 1 - PARAMETER DERATING INFORMATION



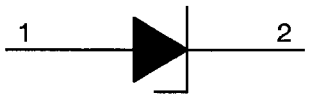
Derating of Peak Pulse Power versus Pulse Time

FIGURE 2 - PHYSICAL DIMENSIONS



SYMBOL	INCHES		MILLIMETRES	
	MIN.	MAX.	MIN.	MAX.
A	-	1.250	-	31.80
B	0.315	0.350	8.00	8.90
C	0.215	0.225	5.55	5.81
D	-	0.210	-	5.33
E	-	0.100	-	2.54
F	0.026	0.035	0.66	0.87

FIGURE 3 - FUNCTIONAL DIAGRAM



1. Anode
2. Cathode

NOTES

1. The cathode end shall be marked with a coloured ring.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the diodes specified herein shall be checked. They shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the diodes specified herein shall be 1.5 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 5000. The test conditions shall be as follows:-

Test Condition: 'E' (Lead Fatigue).

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the diodes specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

The case shall be hermetically sealed and have a metal body.

4.4.2 Lead Material and Finish

The lead material shall be Type 'L' with either Type '2' or Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500. (See Table 1(a) for Type Variants).

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700. Each component shall be marked in respect of:-

(a) Lead Identification.

(b) The SCC Component Number.

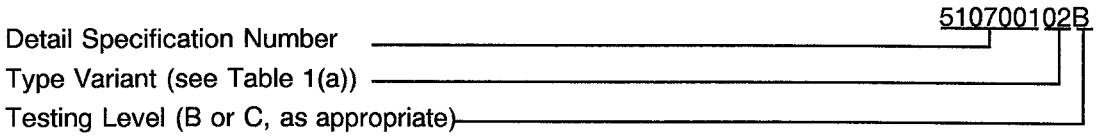
(c) Traceability Information.

4.5.2 Lead Identification

Lead identification shall be as shown in Figures 2 and 3.

4.5.3 The SCC Component Number

Each component shall bear the SCC Component Number which shall be constituted and marked as follows:



4.5.4 Traceability Information

Each component shall be marked in respect of traceability information in accordance with the requirements of ESA/SCC Basic Specification No. 21700.

4.5.5 Marking of Small Components

When it is considered that the component is too small to accommodate the marking as specified above, as much as space permits shall be marked. The order of precedence shall be as follows:-

(a) Lead Identification.

(b) The SCC Component Number.

(c) Traceability Information.

The marking information in full shall accompany each component in its primary package.

4.6 ELECTRICAL MEASUREMENTS

4.6.1 Electrical Measurements at Room Temperature

The parameters to be measured at room temperature are scheduled in Table 2. The measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.6.2 Electrical Measurements at High and Low Temperatures

The parameters to be measured at high and low temperatures are scheduled in Table 3.

4.6.3 Circuits for Electrical Measurements

Circuits for use in performing the electrical measurements listed in Tables 2 and 3 are shown, where applicable, in MIL-STD-750.

4.7 BURN-IN TESTS

4.7.1 Parameter Drift Values

The parameter drift values applicable to burn-in are specified in Table 4 of this specification. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C. The parameter drift values (Δ) applicable to the parameters scheduled, shall not be exceeded. In addition to these drift value requirements, the appropriate limit value specified for a given parameter in Table 2 shall not be exceeded.

4.7.2 Conditions for Burn-in

The requirements for burn-in are specified in Section 7 of ESA/SCC Generic Specification No. 5000. The conditions for burn-in shall be as specified in Table 5 of this specification.

4.7.3 Electrical Circuits for Burn-in (Figure 5)

Not applicable.

TABLE 2 - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - d.c. PARAMETERS

No.	CHARACTERISTICS	SYMBOL	MIL-STD-750 TEST METHOD	TEST CONDITION	LIMITS		UNIT
					MIN.	MAX.	
1	Reverse Current	I_R	4016	V_R = (1) V	-	(2)	µA
2	Breakdown Voltage	$V_{(BR)}$	4021	I_R = (3) mA	(3)	-	V

TABLE 2 - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURES - a.c. PARAMETERS

No.	CHARACTERISTICS	SYMBOL	MIL-STD-750 TEST METHOD	TEST CONDITION	LIMITS		UNIT
					MIN.	MAX.	
3	Clamping Voltage	V_C	4022	I_{pp} = (4) Apk t_p = 1.0ms	-	(5)	Vpk
4	Forward Voltage Average	$V_{F(AV)}$	4021	I_{FSM} = 100Apk Period: 8.3ms, sine-wave	-	3.5	Vpk

NOTES

1. See Column 5 of Table 1(a).
2. See Column 4 of Table 1(a).
3. See Column 6 of Table 1(a).
4. See Column 8 of Table 1(a).
5. See Column 7 of Table 1(a).

TABLE 3 - ELECTRICAL MEASUREMENTS AT HIGH AND LOW TEMPERATURES

No.	CHARACTERISTICS	SYMBOL	MIL-STD-750 TEST METHOD	TEST CONDITION	LIMITS		UNIT
					Min	Max	
1	Reverse Current	I_R	4016	V_R = (1) V T_{amb} = +150°C	-	500 (2)	µA
2	Breakdown Voltage	$V_{(BR)}$	4021	I_R = (3) mA T_{amb} = -55°C	(3)	-	V

NOTES

1. See Column 5 of Table 1(a).
2. Limits for the following type variants shall be:-

09,	10:	I_R =	10	mA maximum.
21,	22:	I_R =	3.0	mA maximum.
27,	28:	I_R =	5.0	mA maximum.
29,	30:	I_R =	2.0	mA maximum.

3. See Column 9 of Table 1(a).

TABLE 4 - PARAMETER DRIFT VALUES

No.	CHARACTERISTICS	SYMBOL	SPEC. AND/OR TEST METHOD	TEST CONDITION	CHANGE LIMITS (Δ)	UNIT
1	Reverse Current	I_R	As per Table 2	As per Table 2	±500 (1)	nA
2	Breakdown Voltage	$V_{(BR)}$	As per Table 2	As per Table 2	±5.0	%

NOTES

1. For type variants

09,	10:	Δ =	± 100	µA.
21,	22:	Δ =	± 30	µA.
27,	28:	Δ =	± 50	µA.
29,	30:	Δ =	± 20	µA.
31,	32:	Δ =	± 5.0	µA.
33,	34:	Δ =	± 1.0	µA.

TABLE 5 - CONDITIONS FOR BURN-IN AND OPERATING LIFE TEST

No.	CHARACTERISTICS	SYMBOL	CONDITION	UNIT
1	Ambient Temperature	T_{amb}	+125(+0-3)	°C
2	Reverse Voltage	V_R	See Table 1(a) Column 5	V

NOTES

1. Prior to the application of the above conditions, the components shall be subjected to a maximum peak pulse current test (Ipp). The peak current specified in Table 1(a), Column 8, shall be applied in the reverse direction while simultaneously maintaining a reverse bias voltage of not less than the voltage specified in Column 5 of Table 1(a). The peak current pulse definition shall be as follows, with a maximum of 1 pulse per minute applied:-

   Pulse current shall reach 100% of I_{pp} at $t \leq 10\mu s$ and decay to 50% of I_{pp} at $t \geq 1.0ms$.
   (The tolerance on time shall be -0 +10%).

   For the burn-in test, the number of pulses applied shall be 20. For operating life test, the number of pulses applied shall be 100. On completion of the pulse testing, and before commencement of Table 5 burn-in, reverse current (I_R) shall be measured at Tamb = +25°C, and devices failing to meet the Table 2 limit shall be removed from the lot.

   The number of failures shall be recorded and be included in the PDA calculation.

4.8 ENVIRONMENTAL AND ENDURANCE TESTS (CHARTS IV AND V OF ESA/SCC GENERIC SPECIFICATION NO. 5000)

4.8.1 Electrical Measurements on Completion of Environmental Tests

The parameters to be measured on completion of environmental tests are scheduled in Table 2. The measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.2 Electrical Measurements at Intermediate Points during Endurance Tests

The parameters to be measured at intermediate points during endurance tests are as scheduled in Table 6.

4.8.3 Electrical Measurements on Completion of Endurance Tests

The parameters to be measured on completion of endurance testing are scheduled in Table 6. The measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.4 Conditions for Operating Life Tests (Part of Endurance Testing)

The requirements for operating life testing are specified in Section 9 of ESA/SCC Generic Specification No. 5000. The conditions for operating life testing shall be as specified in Table 5 of this specification.

4.8.5 Electrical Circuits for Operating Life Tests (Figure 5)

Not applicable.

4.8.6 Conditions for High Temperature Storage Test (Part of Endurance Testing)

The requirements for the high temperature storage test are specified in ESA/SCC Generic Specification No. 5000. The conditions for high temperature storage shall be $T_{amb} = +175(+0\text{-}5)$ °C.

TABLE 6 - ELECTRICAL MEASUREMENTS AT INTERMEDIATE POINTS AND ON COMPLETION OF ENDURANCE TESTING

No.	CHARACTERISTICS	SYMBOL	SPEC. AND/OR TEST METHOD	TEST CONDITIONS	LIMITS		UNIT
					MIN.	MAX.	
1	Reverse Current	I_R	As per Table 2	As per Table 2	-	(1)	µA
2	Breakdown Voltage	$V_{(BR)}$	As per Table 2	As per Table 2	(2)	-	V

NOTES
1. See Column 4 of Table 1(a).
2. See Column 6 of Table 1(a).

APPENDIX 'A'

AGREED DEVIATIONS FOR G.S.I. (USA)

Items Affected	Description of Deviation	Approved DCR
Para. 4.2.2 Para. 4.2.3 Para. 4.2.4 Para. 4.2.5	Fine Leak Test may be performed to Method 1071, Condition 'G', of MIL-STD-750.	24024
Para. 4.2.2 Para. 4.2.3 Para. 4.2.4 Para. 4.2.5	External Visual Inspection may be performed to Method 2071 of MIL-STD-750.	
Para. 4.2.2	Internal (pre-encapsulation) Visual Inspection may be performed to Method 2074 of MIL-STD-750.	
Para. 4.2.3	Radiographic Inspection may be performed to Method 2076 of MIL-STD-750.	