ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV7364

ISSUE NO. 1 DATED 20TH MARCH 1963

AMENDMENT NO. 1

Page 1. Mechanical Dimensions and Outline.

Delete Section D, appendix I, -----

------ accordance with D6B.

Insert See Drawing Page 8.

Add New Page 8.

MILITARY SPECIFICATION

CV 7364

SEMICONDUCTOR DEVICE, DIODE

Description:- This specification covers the detail requirements for a single-ended, glass, Germanium junction diode and is in accordance with Specification K.1007 except as otherwise stated.

Mechanical Dimensions and Outline:- Section D, Appendix I, Drawing D5A except that Dim M shall read 0.120 inch. Leads in accordance with D6B.

Polarity:- Cathode end marked as clause 1.3.4.

Absolute Maximum Ratings:-

Rating	V_R	$I_{F(pk)}$	I_F	T_{stg}	T_j	Shock	Vibration
Unit	V	A	mA	°C	°C	g	g
Min	-	-	-	-55	-	-	-
Max	30	1.0	100	+75	+75	1500	20
Note	A						

Note A. Peak or d.c.

B. Commercial equivalent AAZ 12.

26th August, 1963 Ministry of

CV7364

Primary Electrical Characteristics:-

Characteristic		V_F	I_R	I_R	Q_s	C
Unit		V	μA	μA	pC	pF
Min		-	-	-	-	-
Max		0.42	55	300	200	12
CONDITIONS	T_{case} °C	25	25	60	25	25
	V_R V	-	30	30	-	3
	I_F mA	100	-	-	10	-
	$I_{R\ pk}$ mA	-	-	-	10	-
	f Mc/s	-	-	-	-	0.5

Reliability Assurance Requirements:- Under discussion.

Requirements

Marking As K.1007, B, 1.3.4.1(a), (b), (c).

Quality Assurance Provisions

Destructive Tests The tests listed in Table 2, Group B, Sub-Groups 2, 3 and 4 and Table 3, Group C Inspection Sub-Group 2 are considered destructive.

Group C Inspection This inspection shall be conducted on the initial lot and thereafter every ninety days or every fifth lot, whichever occurs first.

Preparation for Delivery

Packaging The devices shall be packed according to K.1007, Section A, 1.2(c).

Joint Service Catalogue Number

5960-99-037-3131.

This specification has been prepared by, and the Qualification Approval Authority is:-

Ministry of Aviation, Signals Research and Development Establishment, Christchurch, Hampshire, England.

Table 1

GROUP A INSPECTION

Examination or Test	Test Conditions		AQL %	Insp. Level	Symbol	Limits		Units
	K1007/ NATO Ref.	Specific Conditions				Min	Max	
SUB GROUP 1								
Visual and Mechanical Inspection.	5.1	Excluding Physical Dimensions	0.65	II				
SUB GROUP 2			0.65	II				
Forward Voltage.	8A.3.2	I_F = 100 mA d.c.			V_F	-	0.42	V
Reverse Current (1).	8A.2.2	V_R = 30 V			I_R	-	55	µA
Stored Charge.	8A.6.2	V_F = +10V I_F = 10 mA C_1 = 0.04µF C_2 = 0.01 µF D_1 = CV2290 or CV7110 D_2 = CV7050 R_1 = 1 Kohm V_g = -10V pulse t_r = 10 ns Pulse width 2 µs			Q	-	200	pC
SUB GROUP 3			2.5	I				
Reverse Current (2).	8A.2.2	T_{amb} = 60°C V_R = 30 V			I_R	-	300	µA
SUB GROUP 4			4.0	IA				
Capacitance	8A.5.1	V_R = 3 V Freq. = 0.5 Mc/s			C	-	12	pF

Table 2

GROUP B INSPECTION

Examination or Test	Test Conditions		AQL %	Insp. Level	Symbol	Limits		Units
	K1007/ NATO Ref.	Specific Conditions				Min	Max	
SUB GROUP 1			6.5	IC				
Physical Dimensions	Sec D	Drawings D5A and D6B						
	App I	Dim M 0.120 inch (max)						
SUB GROUP 2			4.0	IA				
Solderability	5.13							
Temperature Cycling	5.5	-55°C to +75°C						
Thermal Shock	5.6.2	75°C and 0°C						
Moisture Resistance	5.3							
SUB GROUP 3			4.0	I				
Vibration Fatigue	5.15.1							
SUB GROUP 4			6.5	IA				
Lead Fatigue	5.10							
SUB GROUP 5								
Omitted								
SUB GROUP 6								
Omitted								

Table 2 GROUP B INSPECTION (Cont'd)

Examination or Test	Test Conditions		AQL %	Insp. Level	Symbol	Limits		Units
	K1007/ NATO Ref.	Specific Conditions				Min	Max	
SUB GROUP 7			4.0	I				
High Temperature Life (non-operating)	6.2.1	T_{stg} = 75°C, t = 1000 hours						
Low Temperature Life (non-operating)	6.2.2	T_{stg} = -55°C, t = 1000 hours						
SUB GROUP 8			4.0	IA				
Operating Life	6.3	Half wave circuit with resistive load P.I.V. = 30V I_O = 100 mA f = 50 c/s T_{amb} = 55°C t = 1000 hours						
Post Test End Points for SUB GROUPS 2, 3, 7 & 8.								
Forward Voltage	8A.3.2	I_F = 100 mA d.c.			V_F	-	0.47	V
Reverse Current (1)	8A.2.2	V_R = 30 V			I_R	-	75	µA

Table 3

GROUP C INSPECTION

Examination or Test	Test Conditions		AQL %	Insp. Level	Symbol	Limits		Units
	K1007/ NATO Ref.	Specific Conditions				Min	Max	
SUB GROUP 1								
Omitted								
SUB GROUP 2			6.5	IA				
Shock	5.17.1	Non-operating. 5 blows in each of four directions, three of which shall be mutually perpendicular. Two shall be opposite, namely towards the base and away from the base.						
Post Test End Points								
Forward Voltage	8A.3.2	I_F = 100 mA d.c.			V_F	-	0.47	V
Reverse Current	8A.2.2	V_R = 30 V			I_R	-	75	µA

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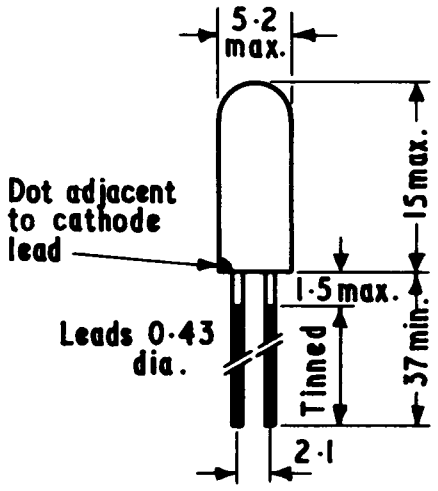

All dimensions in m.m.