

ELECTRONIC VALVE SPECIFICATION CV7130
ISSUE 1 DATED 7.6.61
AMENDMENT NO.1

Page 4

Under Test Conditions against
Forward Voltage Drop, amend
to read :

$$I_F = 3mA$$

Ministry of Aviation/R.R.E.

November 1961

5760

VALVE ELECTRONIC
SEMICONDUCTOR DEVICE

CV7130

Specification MOA/CV7130 Issue 1 dated 7th June, 1961 To be used in conjunction with K1007	<u>SECURITY</u> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"><u>Specification</u> Unclassified</td> <td style="width: 50%; text-align: center;"><u>Valve</u> Unclassified</td> </tr> </table>	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified
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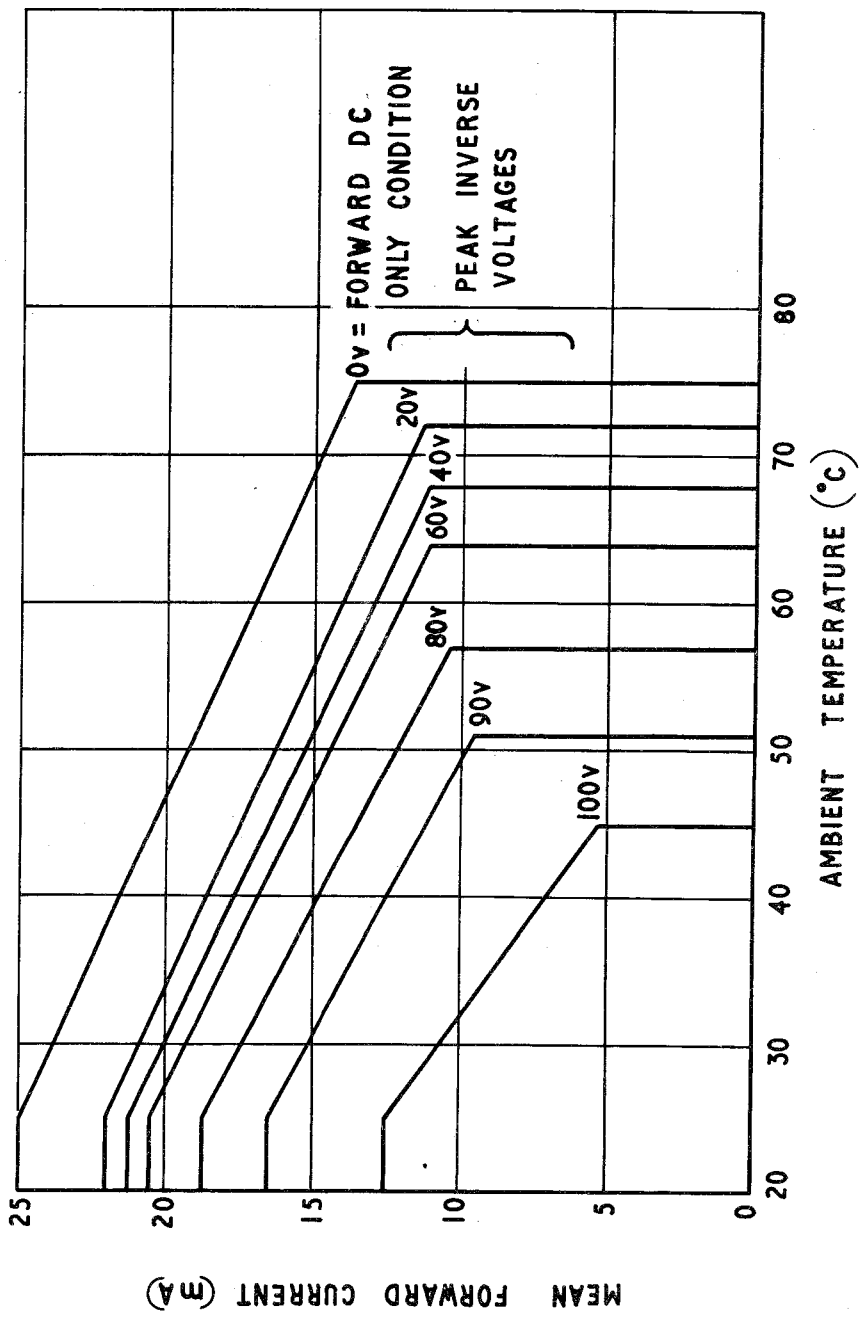
indicates a change

TYPE OF DEVICE - Germanium Point Contact Diode CONSTRUCTION - Glass Body, wire leads PROTOTYPE - CV448	<u>MARKING</u> See K1007/4 CV number as K1007/4.1.4 Polarity marking.																																										
<u>RATING AND CHARACTERISTICS</u> All limiting values are absolute	<u>DIMENSIONS</u> K1007/D.9																																										
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Note</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Max. Peak Inverse Voltage</td> <td style="text-align: center;">(V)</td> <td style="text-align: center;">100</td> <td style="text-align: center;">A</td> <td rowspan="10" style="vertical-align: middle; text-align: center;"> <u>MOUNTING POSITION</u> Any </td> </tr> <tr> <td>Max. DC Reverse Voltage</td> <td style="text-align: center;">(V)</td> <td style="text-align: center;">75</td> <td style="text-align: center;">A</td> </tr> <tr> <td>Max. DC Forward Current</td> <td style="text-align: center;">(mA)</td> <td style="text-align: center;">25</td> <td style="text-align: center;">A</td> </tr> <tr> <td>Max. Slope Resistance at +1V</td> <td style="text-align: center;">(ohms)</td> <td style="text-align: center;">900</td> <td></td> </tr> <tr> <td>Max. Storage Temperature</td> <td style="text-align: center;">(°C)</td> <td style="text-align: center;">+75</td> <td></td> </tr> <tr> <td>Min. Storage Temperature</td> <td style="text-align: center;">(°C)</td> <td style="text-align: center;">-55</td> <td></td> </tr> <tr> <td>Max. Operating Frequency</td> <td style="text-align: center;">(Mc/s)</td> <td style="text-align: center;">10</td> <td style="text-align: center;">B</td> </tr> <tr> <td>Max. Continuous Vibration</td> <td style="text-align: center;">(g)</td> <td style="text-align: center;">10</td> <td></td> </tr> <tr> <td>Max. Shock</td> <td style="text-align: center;">(g)</td> <td style="text-align: center;">500</td> <td></td> </tr> </tbody> </table>				Note		Max. Peak Inverse Voltage	(V)	100	A	<u>MOUNTING POSITION</u> Any	Max. DC Reverse Voltage	(V)	75	A	Max. DC Forward Current	(mA)	25	A	Max. Slope Resistance at +1V	(ohms)	900		Max. Storage Temperature	(°C)	+75		Min. Storage Temperature	(°C)	-55		Max. Operating Frequency	(Mc/s)	10	B	Max. Continuous Vibration	(g)	10		Max. Shock	(g)	500		<u>PACKAGING</u> See K1007/4 The date code shall appear on multiple packs of 100 or more. Manufactures code to appear on individual packs.
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DERATING CURVE



TESTS
To be performed in addition to those applicable in K1007

K1007 Ref	TEST	TEST CONDITIONS	AQL %	Insp. Level	Symbol	LIMITS		Units
						Min.	Max.	
5B.4 5B.2	<u>GROUP A</u> Forward Voltage Drop	$I_f = 3\text{mA dc}$		100%	V_f	-	1.0	V
	Reverse Current (1)	$V_r = 50\text{V}$		100%	I_r	-	100	μA
	<u>GROUP B</u> Peak Inverse Voltage or alternatively Peak Reverse Current	Approved C.R.T. display	0.65	II	V_{piv}	100	-	V
	Peak Reverse Current	$V_{rpk} = 100\text{V}$	0.65	II	I_{rpk}	-	500	μA
	Reverse Voltage	$I_r = 200\mu\text{A}$	0.65	II	V_r	75	-	V
	<u>GROUP C OMITTED</u>							
5B.2 5B.5.1	<u>GROUP D</u> Reverse Current (2)	$V_r = 10\text{V}$ $T_{amb} = 60^\circ\text{C min}$	2.5	IA	I_R	-	50	μA
	Capacitance	$F = 4.5 \text{ Mc/s } \pm 5 \text{ Mc/s}$ $V_r = -10\text{V}$ $V_{input} = 10\text{mV rms Max}$		TA	C_{ak} C_{ac} C_{kc}	- - -	1.0 2.5 2.5	pF pF pF

TESTS (CONTINUED)

K1007 Ref.	TEST	TEST CONDITIONS	AQL %	Insp.	Symbol	LIMITS		Units
						Min.	Max.	
11.5 10.1 10.2	<u>GROUP E</u> Soldering Lead Fragility Temperature Cycling	Three cycles - 55°C to + 75°C		IC IC IC				
10.3 11.3 11.4	Climatic Fatigue Shock	Hammer angle = 30°		IC IC TA				
8	<u>Post Temperature cycling Climatic Fatigue and Shock Tests</u> Inoperatives	Combined AQL for each group of tests	10.0					
5B.4 5B.2	Forward Voltage drop Reverse Current (1)	$I_f = 3, A$ dc $V_r = 50V$	6.5 6.5		V_f I_r	- -	1.1 110	V uA
13.3	<u>GROUP F</u> Life	Half wave circuit with resistive load $P.I.V. = 80V$ min $f = 50$ c/s min $I_o = 10mA$ min $T_{amb} = 45^\circ C$ min. Combined AQL	10.0	IA				
8	<u>Life test end point 1000 hrs.</u> Inoperatives		6.5					

TESTS (CONTINUED)

K1007 Ref.	TEST	TEST CONDITIONS	AQL %	Insp. Level	Symbol	LIMITS		Units													
						Min.	Max.														
5B.4	<u>GROUP F Continued</u> Forward Voltage Drop	$I_f = 3 \text{ mA dc}$	6.5		V_f	-	1.1	V													
									5B.2	Reverse Current (1)	$V_r = 50V$	6.5	I	I_r	-	110	uA				
																		13.4	Storage Life (1)	$T_{amb} = -55^\circ C$ $t = 150 \text{ hours}$	I
8	<u>Post Storage Life Tests</u> Inoperatives Forward Voltage Reverse Current (1)	Combined AQL for each Group of tests	6.5	100%	V_f	-	1.1	V													
									5B.4	Forward Voltage	4.0	4.0	4.0	-	110	uA					
																	5B.2	Reverse Current (1)	4.0		
8	<u>GROUP G</u> Re-test after 28 days holding period Inoperatives Forward Voltage Drop	$I_f = 3 \text{ mA dc}$	0.5	1.0	V_f	-	1.0	V													
									5B.4	Forward Voltage Drop											