

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV. 7026-30

ISSUE NO. 1 DATED 25.6.1959

AMENDMENT NO. 1

Page 1. DIMENSIONS Delete "see drawing on page 4".  
Insert "K1007/A1/D10".

Page 4 Delete drawing at the bottom of  
this page.

Ministry of Aviation/RRE

March 1962  
(10938)

MINISTRY OF SUPPLY - DLRD/RRE

VALVE ELECTRONIC  
SEMICONDUCTOR DEVICE

CV7026  
-CV7030

Specification MOS/CV7026/27/28/29/30 Issue 1, dated 25th June, 1959. To be read in conjunction with K1007	<u>SECURITY</u>	
	<u>Specification</u>	<u>Device</u>
	UNCLASSIFIED	UNCLASSIFIED

Indicates a change ←

TYPE OF DEVICE - Silicon Power Rectifier CONSTRUCTION - Metal body, wire end leads PROTOTYPE -	<u>MARKING</u>
	CV Number Polarity Markings and if practicable Factory Code & Date Code
	) See K1007/4

<u>RATINGS AND CHARACTERISTICS</u>	<u>DIMENSIONS</u>
<u>All limiting values are absolute</u>	See drawings on page 4

Max. Peak Inverse Voltage, -40°C to +125°C; CV7026 (V) 100 C CV7027 (V) 200 C CV7028 (V) 400 C CV7029 (V) 600 C CV7030 (V) 800 C Max. Mean Rectified Forward Current.                                   at 25°C (A) 0.75 A at 100°C (A) 0.5 A Max. Reverse Current at max. P.I.V. at 25°C (uA) 20 at 100°C (uA) 300 Max. Surge Current at 25°C (A) 15 B Max. Continuous Vibration (g) 10 Max. Shock (g) 500	Note	<u>MOUNTING POSITION</u>
		<u>PACKAGING</u>
		See K1007 Section 14

<u>NOTES</u>
A. See derating curves on page 2. B. Applies to all transients and is a maximum peak current where $t_w$ is not greater than 10 mSecs. C. This rating applies to all waveforms including very short transients. Joint Services Catalogue Nos. for CV7026, 5960 - 99 - 037 - 2045 for CV7027, 5960 - 99 - 037 - 2046 for CV7028, 5960 - 99 - 037 - 2047 for CV7029, 5960 - 99 - 037 - 2048 for CV7030, 5960 - 99 - 037 - 2049

# CV7026-30

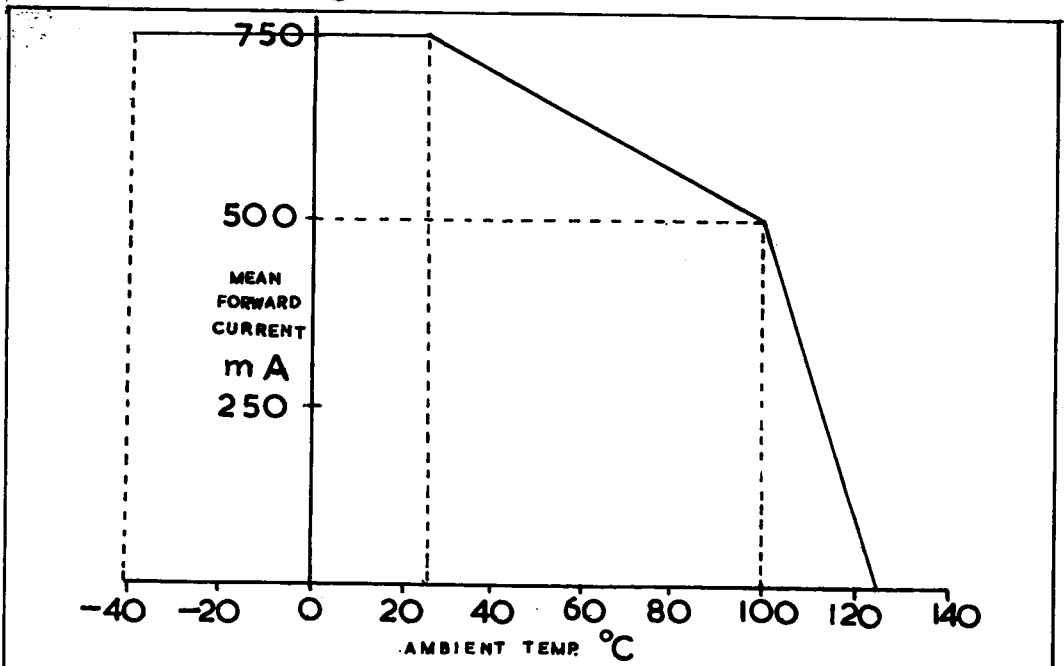


FIG. 1. DERATING CURVE

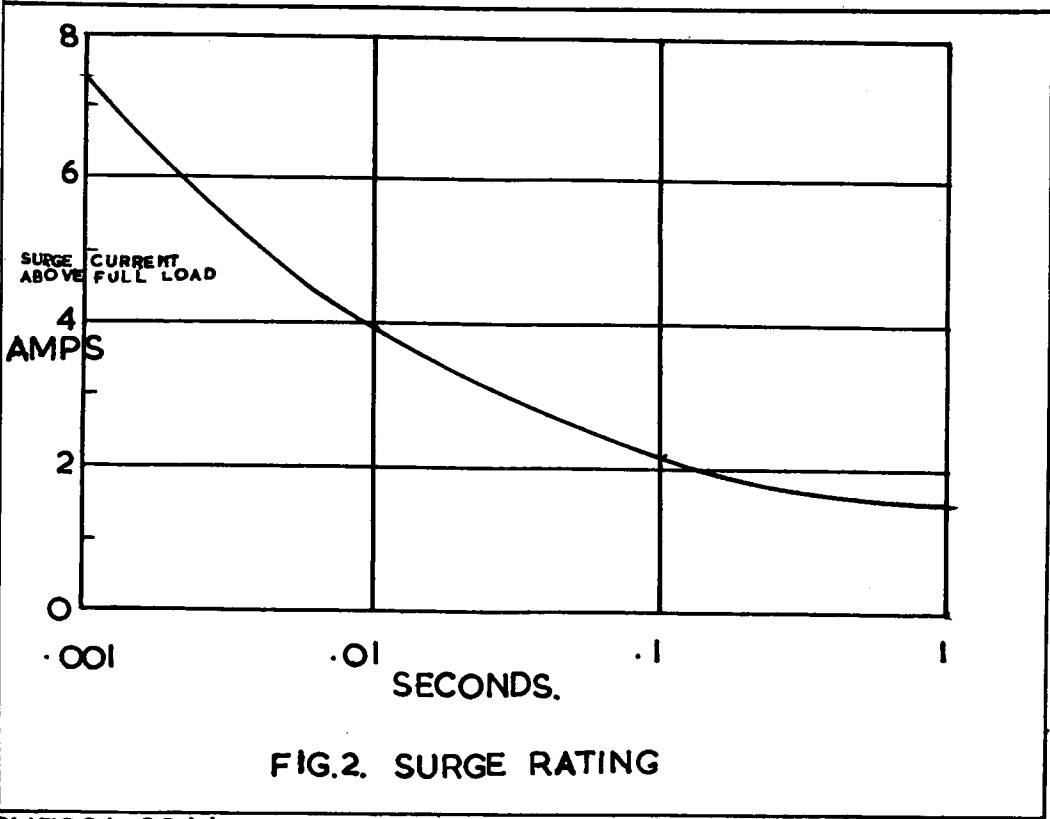


FIG. 2. SURGE RATING

CV7026-30

TESTS

To be performed in addition to those in K1007 Sections 5.2 &amp; 5.3

K1007	TEST	TEST CONDITIONS	AQL %	Insp. level	Sym- bol	LIMITS		UNITS
						Min.	Max.	
5C.4	<u>GROUP A</u> Forward Voltage Drop	If = 0.75A d.c. Tamb = 15°C-30°C		100%	Vf	-	1.0	V
5C.2	Reverse Current (1)	Tamb = 15°C-30°C CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V		100%	Ir	-	20	uA
	<u>GROUP B</u>	Omitted						
5C.2	<u>GROUP C</u> Reverse Current (2)	Tamb = 100°C min. CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V	2.5	I	Ir	-	300	uA
	<u>GROUP D</u>	Omitted						
11.5 10.1 10.2 10.3 11.3 11.4	<u>GROUP E</u> Soldering Lead fragility Temperature cycling Climatic Fatigue Shock	Three cycles -40°C to +100°C  Hammer angle = 60°			IC IC IC  IC IC TA			
8	<u>Post Temperature Cycling, Climatic, Fatigue and Shock Tests</u> Inoperatives			4.0				
5C.4	Forward Voltage Drop	If = .75A d.c. Tamb = 15°C-30°C		4.0	Vf	-	1.1	V
5C.2	Reverse Current (2)	Tamb = 100°C min. CV7026 Vr = 100V CV7027 Vr = 200V CV7028 Vr = 400V CV7029 Vr = 600V CV7030 Vr = 800V		4.0	Ir	-	500	uA
						-	500	uA
						-	500	uA
						-	500	uA
						-	500	uA

CV7026/1/3  
to CV7030/1/3 inclusive

TESTS (Continued)

K1007	TEST	TEST CONDITIONS	AQL %	Insp. Level	Sym- bol	LIMITS		UNITS
						Min.	Max.	
13.3	<u>GROUP F</u> LIFE	Note 1.		IA				
13.4	Storage Life (1)	T <sub>amb</sub> = -40°C t = 150 hrs.		I				
13.5	Storage Life (2)	T <sub>amb</sub> = 125°C t = 150 hrs.		I				
	<u>Life Test End- point - 1000 hrs. and Post Storage life tests (1) &amp; (2)</u>	Combined AQL for each group of tests	6.5					
5C.4	Forward Voltage Drop	If = 0.75A d.c. T <sub>amb</sub> = 15°C-30°C	4.0		Vf	-	1.1	V
5C.2	Reverse Current (2)	T <sub>amb</sub> = 100°C min. CV7026, Vr = 100V CV7027, Vr = 200V CV7028, Vr = 400V CV7029, Vr = 600V CV7030, Vr = 800V	4.0		Ir	-	500 500 500 500 500	uA uA uA uA uA
	<u>GROUP G</u>			100%				
8	Re-test after 28 days holding period Inoperatives	No voltages as in Group A	0.5					
5C.4	Forward Voltage	as in Group A	1.0		Vf	-	1.0	V
5C.2	Reverse Current (1)	as in Group A	1.0		Ir	-	20	uA

NOTES

1. The device shall be tested in a half wave circuit,  $f = 50$  c/s, with a resistive load at an ambient temperature not greater than 105°C and not less than 25°C. The value of  $I_f$  shall be not less than the value corresponding to the chosen ambient temperature according to the derating curve, fig.1 on page 2.

DIMENSIONAL DRAWING