

VALVE ELECTRONIC
SEMICONDUCTOR DEVICE

CV442

Specification MOA/CV442	<u>SECURITY</u>
Issue 4 dated 31.3.60	<u>Specification</u> <u>Valve</u>
To be used in conjunction with K1007	Unclassified Unclassified

→ indicates a change

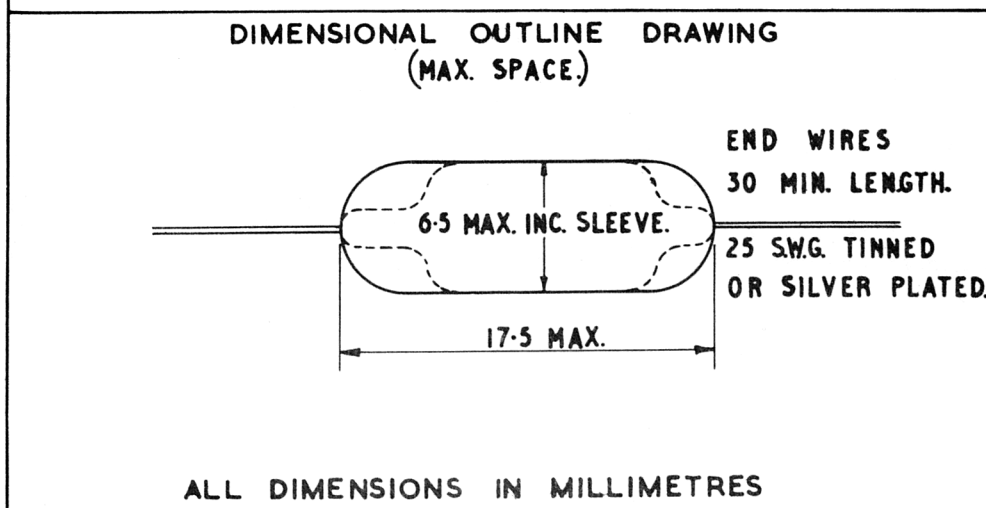
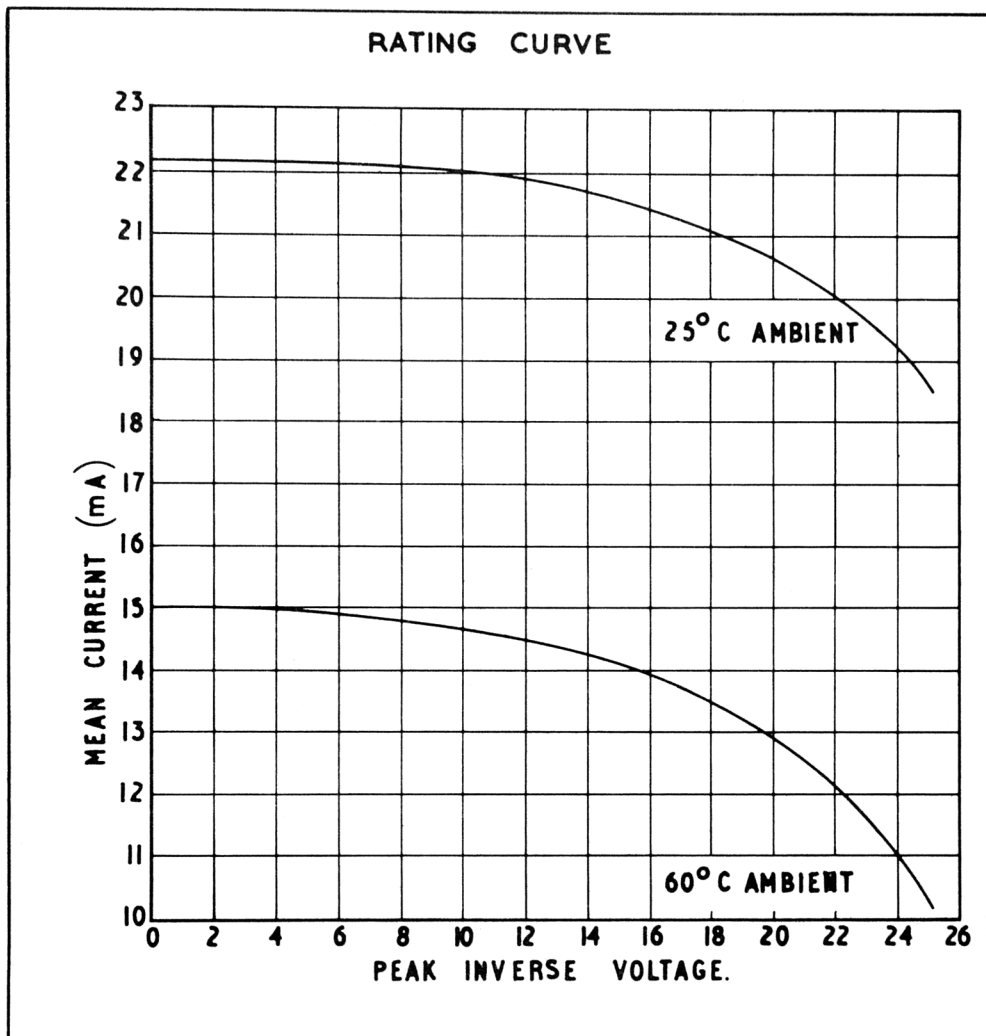
TYPE OF DEVICE - Germanium Rectifier Diode CONSTRUCTION - Glass body, wire ended PROTOTYPE - VX3060, VX4059		<u>MARKING</u> See K1007/4 CV Number Polarity Markings Manufacturers Code	
<u>RATINGS AND CHARACTERISTICS</u> (not for inspection purposes) All limiting values are absolute		Note	
Max Peak Inverse Voltage	(V)	30	A
Max continuous forward Current	(mA)	25	A
Max Storage Temperature	(°C)	75	
Min Storage Temperature	(°C)	-40	
Max Operating Frequency	(Mc/s)	50	B
Max Continuous Vibration	(g)	10	
Max Shock	(g)	500	
<u>PACKAGING</u> See K1007, Section 14 The date code shall appear on multiple packages of 100 or			
<u>CAPACITANCES (pF)</u> (measured at $V_r = 10V$)			
Cak (max)		1.0	
Cae (max)		2.5	
Cke (max)		2.5	

NOTES

- A. The ratings apply for an ambient temperature of 25°C. See derating curve on page 2 for ratings at other temperatures.
- B. This rating is not an absolute value. No damage will occur if the diode is operated at higher frequencies but the efficiency may fall seriously above 50 Mcs.

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ALL DIMENSIONS IN MILLIMETRES

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

K1007	TEST	TEST CONDITIONS	AQL %	Insp. level	Sym- bel	Limits		Units
						Min.	Max.	
5B.4	<u>GROUP A</u> Forward Voltage	If = 3 mA dc		100%	Vf	-	1.0	V
5B.2	Reverse Current	Vr = 30v		100%	Ir	-	2.0	mA
5B.6	<u>GROUP B</u> Detector Conversion Efficiency	F=45 Mcs $\pm$ 5 Mcs Vinput = 2v peak Rg = 1k max C = 14.2pF $\pm$ 2% RL = 4.7K $\pm$ 5% R1 = 1.6 M $\pm$ 5% No external bias	0.65	II		45	-	%
	<u>GROUP C</u> (omitted)							
5B.5.1	<u>GROUP D</u> Capacitance	F = 45 Mcs $\pm$ 5 mcs Vinput = 10mV rms max Vr = -10V		T,A	cak Cae Cke	- - -	1.0 2.5 2.5	pF pF pF
11.5 10.1 10.2	<u>GROUP E</u> Soldering Lead Fragility Temperature cycling	Three cycles -40°C to +100°C		IC IC IC				
10.3 11.3 11.4	Climatic Fatigue Shock	Hammer Angle = 30°		IC IC TA				
	<u>Post Temperature Cycling, Climatic Fatigue & Shock Tests</u>	Combined AQL for each group of Tests	10.0					
8 5B.4 5B.2	Inoperatives Forward Voltage Reverse Current	If = 3 mA dc Vr = 30V	6.5 6.5 6.5		Vf Ir	- -	1.1 2.2	V mA
13.3	<u>GROUP F</u> LIFE	Halfwave circuit with resistive load P.I.V. 30V min f = 50 c/s nom Io = 15 mA min Tamb = 45°C min		IA				

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N O T E

Specification CV442 is now filed in Book 'S'.
File this sheet in its place as a reminder to
refer to Book 'S'.

August 1960.