

SPECIFICATION: M.O.A./CV7122, CV7123 ISSUE 1 dated DEO, 1st 1960 To be read in conjunction with K1007		SECURITY SPECIFICATION DEVICE Unclassified Unclassified	
—————> Indicates a change			
TYPE OF DEVICE: Germanium Power Rectifier PROTOTYPE: GEK541, GEK542		MARKING CV Number Polarity and if possible the Factory Code and Date Code - See K1007/4	
RATINGS, CHARACTERISTICS AND TYPICAL OPERATION (Not for Inspection purposes) All limiting values are absolute		DIMENSIONS As K1007/A1/D ¹⁵ 2. The flexible lead is mandatory. The device shall be complete with a cadmium plated brass nut and washer.	
RATINGS		Note	
Max. reverse voltage for stud temperature - 55°C to + 55°C CV7122 CV7123	(V) (V)	80 160	A A
Max. mean forward current Max. surge current (1 m Sec)	(A) (A)	6 90	B, E C
Max. stud temperature Max. storage temperature Min. storage temperature	(°C) (°C) (°C)	55 + 75 - 55	D, E
CHARACTERISTICS			POLARITY See K1007/4 The stud is positive
Max. reverse current at max. voltage at 25°C ambient temperature at 55°C ambient temperature	(mA) (mA)	5 20	MOUNTING POSITION Any Device intended for conduction cooling
TYPICAL OPERATION			PACKAGING See K1007/14
Max. mean forward current at T _{amb} = 35°C (a) With aluminium fin. 4" x 4" x 16 SWG (b) Without fin.	(A) (A)	6 2	
NOTES			
A. This rating applies to all waveforms including very short transients. B. Some derating may be necessary at frequencies exceeding 2500 c/s. C. See curve figure 1 on page 2. D. For method of measurement of stud temperature see T.V.O. Information Sheet No. 10. E. Equipment designers should note that even at lower stud temperatures a higher current is not permitted. F. Joint Service Catalogue Numbers: CV7122-5690-99-037-2289 CV7123-5690-99-037-2290			

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FIG. 1. SURGE CURRENT RATING FOR DIRECT CURRENT SURGES AT MAXIMUM STUD TEMP: OF 55°C

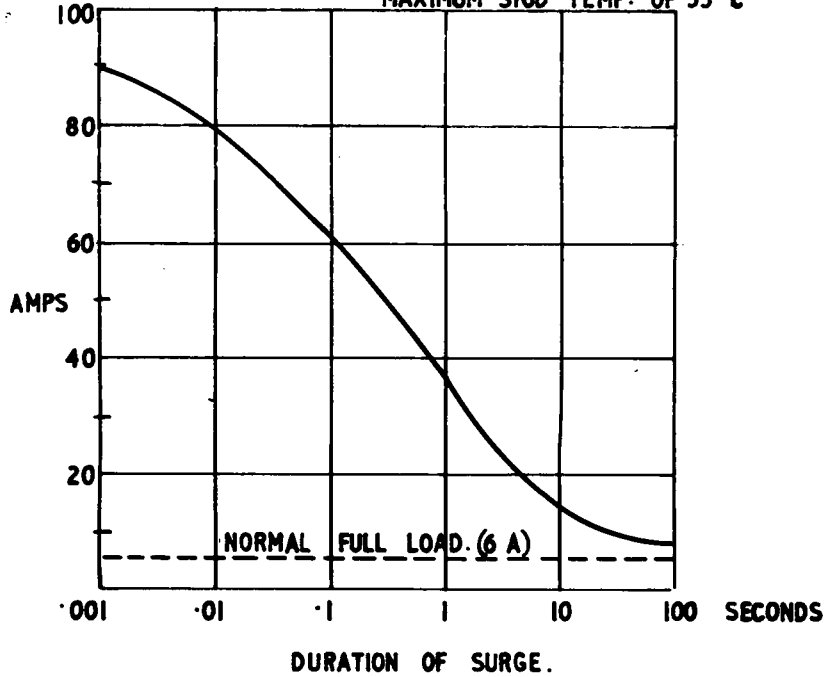
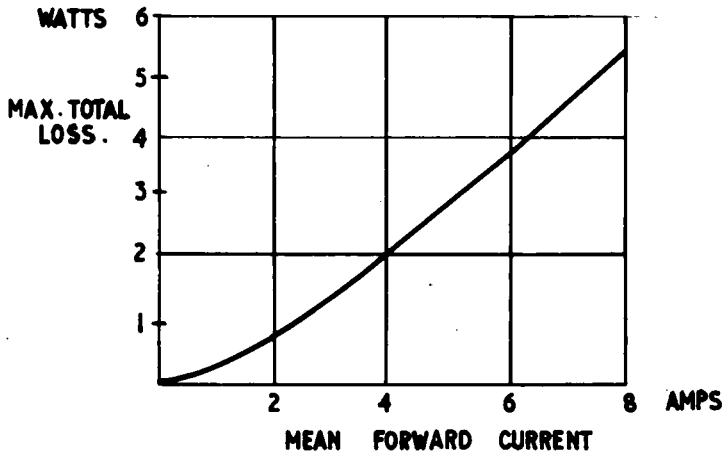


FIG. 2. MAXIMUM TOTAL LOSS CURVE.



K1007	Test	Test Conditions	AQL %	Insp. Level	Sym.	Limits		Units
						Min.	Max.	
	<u>GROUP A</u> - omitted							
	<u>GROUP B</u>							
50.4	Forward Voltage Drop	$I_f = 8.0 \text{ A d.c. Note 1}$ $T_{amb} = 15-30^\circ\text{C}$	0.65	II	V_F	-	0.65	V
50.2	Reverse Current (1)	$T_{amb} = 15-30^\circ\text{C}$ OV7122 $V_R = 80 \text{ V}$ OV7123 $V_R = 160 \text{ V}$	0.65 0.65	II II	I_R I_R	- -	5 5	mA mA
	<u>GROUP C</u>							
50.2	Reverse Current (2)	$T_{amb} = 55^\circ\text{C Note 1}$ OV7122 $V_R = 80 \text{ V}$ OV7123 $V_R = 160 \text{ V}$	2.5 2.5	I I	I_R I_R	- -	20 20	mA mA
	<u>GROUP D</u> - omitted							
	<u>GROUP E</u>							
11.5	Soldering		6.5	IO				
10.2	Temperature Cycling	Three cycles - 55°C to $+75^\circ\text{C}$		IO				
10.3	Climatic Cycling							
11.3	Fatigue			IO				
11.4	Shook	Hammer Angle = 60°		TA				
	<u>Post Temperature Cycling, Climatic Fatigue and Shook Tests</u>							
8	Inoperatives		6.5					
50.2	Reverse Current (2)	As in Group C	6.5		I_R	-	25	mA
	<u>GROUP F</u>							
13.3	Life	Max. P.I.V.; Half wave circuit with resistive load; $f = 50 \text{ c/s}$ Stud temperature = 55°C min. $I_o = 6 \text{ A min.}$		IA				

K1007	Test	Test Conditions	AQL %	Insp. Level	Sym.	Limits		Units
						Min.	Max.	
	<u>GROUP F (Contd.)</u>							
	<u>Post Life Test</u> <u>(Note 2)</u>							
8	Inoperatives		6.5					
	Reverse Current (2)	As in Group O	6.5		I_r	-	25	mA
13.4	Storage Life (1)	$T_{amb} = - 55^{\circ}C$ $t = 150$ hours		I				
13.5	Storage Life (2)	$T_{amb} = + 75^{\circ}C$ $t = 150$ hours		I				
	<u>Post Storage Life</u> <u>Tests</u>							
		Combined AQL for each Storage Life	4.0					
5C.4	Forward Voltage Drop	As in Group B	4.0		V_f	-	0.65	V
5C.2	Reverse Current (1)	As in Group B	4.0		I_r	-	5	mA
	<u>GROUP G</u>							
	Retest after 28 days holding period			100%				
8	Inoperatives		0.5					
5C.4	Forward Voltage Drop	As in Group B	1.0		V_f	0.3	0.65	V

NOTES

1. Rectifier attached to a heat sink, e.g. an aluminium fin.
4" x 4" x 16 S.W.G.
2. Samples used for life tests will be accepted for delivery if they
pass the Group B requirements.