

Specification MDS(A)/CV2289 Issue 2 Dated 8. 4. 54. To be read in conjunction with K1001.	<u>SECURITY</u>
	Specification UNCLASSIFIED Valve UNCLASSIFIED

→ Indicates a change

<u>TYPE OF VALVE</u> - High Vacuum, Half-wave Rectifier		<u>MARKING</u>			
CATHODE	- Directly-heated	See K1001/4			
ENVELOPE	- Glass - Unmetallised				
PROTOTYPE	- U37				
<u>RATING</u>		<u>BASE</u>			
		None			
Filament Voltage	(V) 1.4	<u>CONNECTIONS</u>			
Filament Current	(A) 0.15	Lead	Electrode		
Max. Peak Inverse Voltage	(kV) 15	Top Lead	Anode		
Max. Peak Inverse Voltage with direct switching	(kV) 10	Bottom Leads	Filaments		
Max. Mean Rectified Current	(mA) 2				
Max. Peak Anode Current	(mA) 12				
<u>TYPICAL OPERATING DATA</u>		<u>DIMENSIONS</u>			
		See Drawing on Page 2			
<u>Sinusoidal Input</u>					
RMS Input Voltage	(kV) 5.3	<u>MOUNTING POSITION</u>			
Rectified Voltage	(kV) 7.5	Any			
Rectified Current	(mA) 100				
Reservoir Condenser (50 c/s wkg; 15% ripple)	(μF) 0.005				
<u>Pulse Input</u> (See Note C)					
Peak Input Voltage	(kV) 7.5				
Rectified Output Voltage	(kV) 7				
Rectified Output Current	(mA) 100				
Optimum Reservoir Condenser	(μF) 0.001				
<u>CAPACITANCES</u> (pF)					
Ca-f	0.65				
<u>NOTES</u>					
A.	Absolute maximum value.				
B.	This rating applies to circuits where the anode voltage rises at approximately the same rate as the filament voltage, e.g. in fly-back and RF oscillator circuits. When used in power input circuits with full AC anode voltage applied on switching, the maximum peak inverse voltage is 10 kV.				
C.	PRF = 20 kc/s; T <sub>p</sub> = 5 μsecs.				

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions		Test	Limits		No. Tested	Note
	V <sub>f</sub> (V)	V <sub>a</sub> (V)		Min.	Max.		
→ a	1.4	0	Filament Current (A)	0.13	0.17	100%	
→ b	1.4	85V DC max.	Anode Current (mA)	4	-	100%	
→ c	1.4	Input voltage = 5.3 kW RMS; Frequency = 50 cps; Output current = 100 mA nominal; Reservoir condenser = 0.1 μF; Effective external resistance = 100k.	<u>Load Test</u> Run for 1 minute and reject for persistent flashover.	-	-	100%	1

NOTE

- 1. An alternative Load Test may be performed at f = 100 kc/s approx, using a reservoir condenser = 0.001 μF. Other conditions as for Test (c).

