

Standard Telephones and Cables Limited
BRIMAR VALVE WORKS, FOOTSCRAY, SIDCUP, KENT, ENGLAND

BRIMAR	R. E. T. M. A. REGISTRATION DATA	TYPE..... 7227.
		DATE ISSUED..... 2.10.58.

TYPE 7227: LOW VOLTAGE OUTPUT PENTODE.

The 7227 is an indirectly heated pentode for power output operation. It is designed for reliable service in mobile or fixed equipment where adverse conditions of mechanical vibration and shock are present. The tube will operate in applications where the heater, plate and screen voltages are derived from a battery of approximately 24V. These features make the tube particularly suitable for use in the instrumentation, control and radio equipment of aircraft.

MECHANICAL DATA

Coated unipotential cathode	
Outline drawing 6-3	Bulb T - 6 $\frac{1}{2}$
Base E9-1	Miniature Glass Button 9 pin.
Maximum diameter	7"
Maximum overall length	2 $\frac{5}{8}$ "
Maximum seated height	2 $\frac{3}{8}$ "
Pin connections	Basing 9BA
Pin 1 - Internal connection	Pin 6 - Internal connection
Pin 2 - Grid No.1	Pin 7 - Plate
Pin 3 - Cathode	Pin 8 - Grid No.2
Pin 4 - Heater	Pin 9 - Grid No.3
Pin 5 - Heater	
Mounting position	Any
Maximum shock (intermittent service)	500g
Maximum vibration (continuous service)	2 $\frac{1}{2}$ g

ELECTRICAL DATA

Direct Interelectrode capacitances - without external shield

Grid to plate: (g1-p) maximum	0.35pF
Input (g1-h+k+g2+g3).....	12.5pF
Output (a-h+k+g2+g3).....	7.5pF

Ratings Design Centre Values.

Maximum heater voltage.....	29volts
Minimum heater voltage.....	22volts
Maximum heater-cathode voltage.....	+50volts
Maximum plate voltage	50D.C.volts
Maximum grid No.2 voltage	50D.C.volts
Maximum plate supply voltage (Ib = 0).....	50D.C.volts

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R.E.T.M.A. REGISTRATION DATA (CONTINUED)

TYPE...7227.....

Maximum grid No.2 supply voltage ($I_{g2} = 0$)	50D.C.volts
Maximum plate dissipation	2 watts
Maximum grid No.2 dissipation	0.5 watts
Maximum grid No.1 current	5 mA
Maximum cathode current	4.0 mA
Maximum grid No.1 circuit resistance	
Fixed bias	0.5megohm
Self bias	1.0megohm

Typical Operating Conditions and Characteristics, Class A1 Amplifier

Heater voltage (A.C. or D.C.)	27.5 volts
Heater current	175 mA
Plate voltage	27.5D.C.volts
Grid No.3 voltage	Pin No.9 connected to pin No.3 at socket
Grid No.2 voltage	27.5D.C.volts
Grid No.1 voltage	-2.5D.C.volts
Plate resistance (Approx.)	8.0 kilohms
Transconductance.....	5500 μ mhos.
Plate current.....	11.0 mA
Grid No.2 current	1.1mA
Grid No.1 voltage (approx.) for $I_b=10\mu A$,.....	-7.5 volts
Amplification factor (g_1-g_2)	4.0
Power output.....	70mW