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

BRIMAR	R. E. T. M. A. REGISTRATION DATA	TYPE 7227.
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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 ..... $\frac{7}{8}$"
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

Maximum grid No.2 supply voltage (Ig2 = 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 ..... 40 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..... 5500u mhos.
Plate current..... 11.0 mA
Grid No.2 current 1.1mA
Grid No.1 voltage (approx.) for Ib=10uA,..... -7.5 volts
Amplification factor (g1-g2) 4.0
Power output..... 70mW