



engineering data service

7245

ADVANCE DATA

MECHANICAL DATA

Bulb	T-5 1/2
Base	E7-1, Miniature Button 7-Pin
Outline	JETEC 5-2
Basing	7BQ
Cathode	Coated Unipotential
Mounting Position	Any

RATINGS¹ (Design Maximum)

Bulb Temperature (At Hottest Point)	120 °C
Operational Altitude ²	60,000 Ft

DURABILITY CHARACTERISTICS³

Impact Acceleration ⁴	450 G Max.
Fatigue (Vibrational Acceleration for Extended Periods)	2.5 G Max.

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	6.3 V
Heater Current	400 mA

CONTROLLED DETRIMENTS

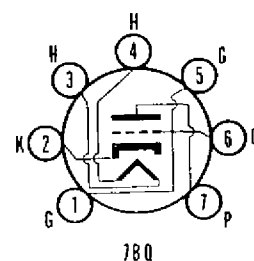
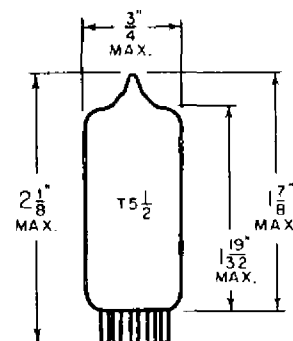
Interelectrode Insulation ⁵	200 Meg Min.
Total Grid Current ⁶	-0.5 μ Adc Max.
Vibration Output ⁷	200 mVac Max.

DIRECT INTERELECTRODE CAPACITANCES (Shielded)⁸

Grid to Plate	2.8 μ f
Input: k to (g+h+Shd)	9.5 μ f
Output: p to (g+h+Shd)	3.0 μ f
Heater to Cathode	5.5 μ f
Plate to Cathode	0.2 μ f Max.

QUICK REFERENCE DATA

The reliable Type 7245 is a high- μ triode featuring stacked mount design and frame type grid construction. It is characterized by long life and stable performance under conditions of severe shock, vibration, high temperature and high altitude.



SYLVANIA ELECTRIC
PRODUCTS INC.
RECEIVING TUBE
OPERATIONS
EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

September 24, 1958

Page 1 of 3

RATINGS¹ (Design Maximum)

Heater Voltage	6.3 ($\pm 10\%$)	V
Plate Voltage	150	Vdc
Plate Dissipation	2.25	W
Cathode Current	20	mA _{dc}
DC Grid Voltage		
Positive Value	0	Vdc
Negative Value	50	Vdc
Heater Cathode Voltage		
Heater Positive with Respect to Cathode		
Total DC and Peak	200	v
Heater Negative with Respect to Cathode		
Total DC and Peak	200	v
Total DC	100	v
Grid Circuit Resistance		
Fixed Bias	0.1	Meg
Self Bias	0.5	Meg

AVERAGE CHARACTERISTICS

Conditions:		
Heater Voltage	6.3	V
Plate Voltage	150	Vdc
Cathode Bias Resistor	100	Ohms
Plate Current	13.5	mA _{dc}
Transconductance	11,000	μ hos
Amplification Factor	50	
Grid No. 1 Voltage for $I_b = 10 \mu A$ Max.	-15	Vdc

NOTES:

1. Design Maximum Definition: Design Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions. These values are chosen by the device manufacturer to provide acceptable serviceability of the device, taking responsibility for the effects of changes in operating conditions due to variations in device characteristics.

The equipment manufacturer should design so that initially and throughout life no design maximum value for the intended service is exceeded with a bogey device under the worst probable operating conditions with respect to supply voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

2. If altitude rating is exceeded, reduction of instantaneous voltage (E_f excluded) may be required.
3. Test performed as a measure of the mechanical durability of the tube structure.
4. Force as applied in any direction by the Navy Type High Impact (Flyweight) Shock Machine for Electronic Devices.
5. Measured with $E_f = 6.3$ V; E_g -all = -100 Vdc; E_p -all = -300 Vdc; cathode is positive so that no cathode emission occurs.

NOTES (Continued)

6. Measured with $E_f = 6.3$ V; $E_b = 175$ Vdc; $R_k = 150$ Ohms; $R_g = 0.25$ Meg.
7. $E_b = 150$ Vdc; $E_c = 0$ Vdc; $R_p = 2000$ Ohms; $R_k = 100$ Ohms; $F = 40$ cps; $A_{cc} = 15$ G.
8. With Shield 316 to ground, excepting for C_{in} and C_{out} where Shield 316 is tied to grid.