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

RATINGS [1] (Design Maximum)

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

DURABILITY CHARACTERISTICS [3]

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	µAdc Max.
Vibration Output [7]	200	mVac Max.

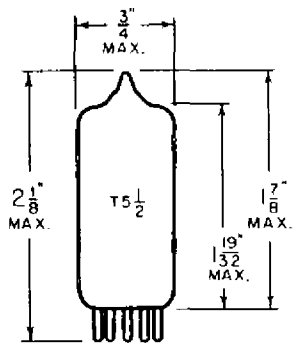
DIRECT INTERELECTRODE CAPACITANCES (Shielded) [8]

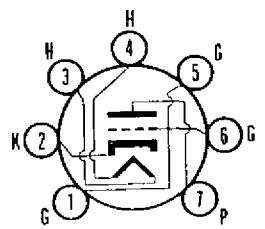
Grid to Plate	2.8	µµf
Input: k to (g+h+Shd)	9.5	µµf
Output: p to (g+h+Shd)	3.0	µµf
Heater to Cathode	5.5	µµf
Plate to Cathode	0.2	µµf Max.

from JETEC release #2287, Oct. 13, 1958

QUICK REFERENCE DATA

The reliable Type 7245 is a high-mu 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.





7BQ

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

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

September 24, 1958

RATINGS[1] (Design Maximum)

Heater Voltage	6.3 (±10%)	V
Plate Voltage	150	Vdc
Plate Dissipation	2.25	W
Cathode Current	20	mAdc
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	mAdc
Transconductance	11,000	µmhos
Amplification Factor	50	
Grid No. 1 Voltage for Ib = 10 µA 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 (Ef 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 Ef = 6.3 V; Eg-all = -100 Vdc; Ep-all = -300 Vdc; cathode is positive so that no cathode emission occurs.

NOTES (Continued)

6. Measured with Ef = 6.3 V; Eb = 175 Vdc; Rk = 150 Ohms; Rg = 0.25 Meg.

7. Eb = 150 Vdc; Ec = 0 Vdc; Rp = 2000 Ohms; Rk = 100 Ohms; F = 40 cps; Acc = 15 G.

8. With Shield 316 to ground, excepting for Cin and Cout where Shield 316 is tied to grid.