



engineering data service

SYLVANIA

6DY4A
3DY4A
2DY4A
1DY4A

ADVANCE DATA

MECHANICAL DATA

Bulb	T-5 $\frac{1}{2}$
Base	E7-1, Miniature Button 7-Pin
Outline	5-1
Basing	7DK
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics

	1DY4A	2DY4A	3DY4A	6DY4A
Heater Operation Series	Series	Series	Series	Parallel
Heater Voltage	1.6	2.05 $\frac{1}{2}$	2.9	6.3 $\frac{1}{2}$ Volts
Heater Current	2 600	450 $\frac{1}{2}$	300	125 Ma
Heater Warm-up Time	11	11	11	- Seconds

Ratings (Design Maximum Values)

	Min-Max	Min-Max	Min-Max	Min-Max
Heater Voltage	- -	- -	- -	5.7-6.9 Volts
Heater Current	560-640	420-480	280-320	- - Ma
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total DC & Peak	180	180	180	50 Volts

Heater Positive with Respect to Cathode

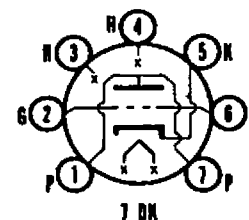
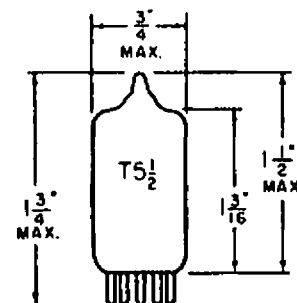
DC	100	100	100	25 Volts
Total DC & Peak	180	180	180	50 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

Grid to Plate	2.0 pf
Input: g to (h + k + E.S.)	3.5 pf
Output: p to (h + K + E.S.)	1.15 pf
Heater to Cathode	2.3 pf

QUICK REFERENCE DATA

The Sylvania Types 6DY4A, 3, 2, 1 are high efficiency, high Gm. medium μ , strap frame grid, triodes, intended for UHF oscillator service. The high figure of merit of the tubes ($G_m \times \mu$) permits oscillation at low plate power; additionally, the low heater power insures low temperature operation resulting in long life and high stability. The 6DY4A, 3, 2, 1 are identical to the 6DY4, 3, 2, 1 except for bulb size.



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

RECEIVING TUBE OPERATIONS

EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

August 8, 1963
Page 1 of 2

SYLVANIA

6DY₄A
3DY₄A
2DY₄A
1DY₄A

Page 2

RATINGS (Design Maximum Ratings)

UHF Oscillator Service

Plate Voltage	135 Volts Max.
Plate Dissipation	1.5 Watts Max.
Negative Grid Voltage	50 Volts Max.
Grid Current	2 Ma Max.
Cathode Current	20 Ma Max.

Note: Control grid to cathode spacing on this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 30 volts dc or peak ac in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier	90 Volts
Cathode Resistor	180 Ohms
Plate Current	10.4 Ma
Transconductance	11,000 μ mhos
Amplification Factor	28
E_c for $I_b = 100 \mu a$ (Approx.)	-4.25 Volts

Oscillator at 960 Mc

Plate Supply Voltage	135 Volts
Plate Resistor	4700 Ohms
Grid Resistor	4700 Ohms
Plate Current	11.5 Ma
Grid Current (Approx.)	650 μa

NOTES

1. For series/parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater current/voltage.
2. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
3. Heater voltage supply variations shall be restricted to maintain heater voltage/current within the specified values.