

TWIN-DIODE HIGH-MU TRIODE TYPES 6AT6 AND 12AT6

The 6AT6 and 12AT6 are 7-pin miniature twin diode and high-mu triode types used as combined detector, amplifier, and AVC tubes in automobile and ac-operated radio receivers.

GENERAL DATA

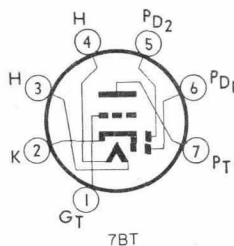
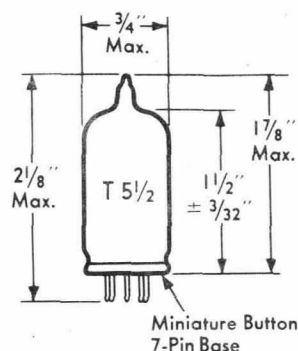
ELECTRICAL:

Cathode.....	Coated Unipotential		
Heater:	6AT6	12AT6	
Voltage (ac or dc)	6.3	12.6	Volts
Current	0.30	0.15	Ampere
Direct Interelectrode Capacitances:			
	Shielded	Unshielded	
Grid to Plate	2.0	2.0	uuf
Input	2.2	2.2	uuf
Output	1.2	0.8	uuf
Diode Plate No. 2 to Triode Grid	0.04	0.04	max. uuf

MECHANICAL:

Bulb	T-5-1/2
Base	Miniature 7-Pin (JETEC E7-1)
Outline	5-2
Basing	7BT
Mounting Position	Any

□ With external shield No. 316 connected to Pin 2.



AMPLIFIER - CLASS A

Triode Unit

MAXIMUM RATINGS:

Design-Center Values

Plate Voltage	300	max.	Volts
Grid Voltage:			
Positive Bias Value	0	max.	Volts
Plate Dissipation	0.5	max.	Watts
Peak Heater-Cathode Voltage:			
Heater Positive or Negative with Respect to Cathode	90	max.	Volts

CHARACTERISTICS AND TYPICAL OPERATION:

Plate Voltage	100	250	Volts
Grid Voltage	-1	-3	Volts
Amplification Factor	70	70	
Plate Resistance (approx.)	54000	58000	Ohms
Transconductance	1300	1200	umhos
Plate Current	0.8	1.0	Ma.

Diode Units

MAXIMUM RATINGS:

Design-Center Values

DC Output Current per Plate	1.0	max.	Ma.
Peak Heater-Cathode Voltage:			
Heater Positive or Negative with Respect to Cathode	90	max.	Volts

CHARACTERISTICS:

Average Plate Current (Each Unit) with 10VDC	2.0	Ma.
--	-----	-----

RESISTANCE COUPLED AMPLIFIER DATA:

Plate Supply Voltage	90	250	Volts
Plate Load Resistor	0.22	0.47	Megohm
Grid Voltage	0	0	Volts
Grid Resistor	10	10	Megohms
Coupling Condenser:			
Input	0.01	0.01	uf
Output	0.01	0.01	uf
Grid Resistor of Following Stage	0.47	0.47	Megohm
Max. Signal Source Impedance	1000	1000	Ohms
Distortion	5	5	Percent
Output Voltage	8	34	Volts
Voltage Gain at 400 cps	35	46	Volts

