

DUPLEX-DIODE, TRIODE TYPE 6CN7

The 6CN7 is a 9-pin miniature duplex-diode and high mu triode type designed for service as a combined horizontal-phase detector and reactance tube in television receivers. The triode section has a cathode separate from the diode sections and may be used in sync-separator, sync-amplifier or audio amplifier circuits.

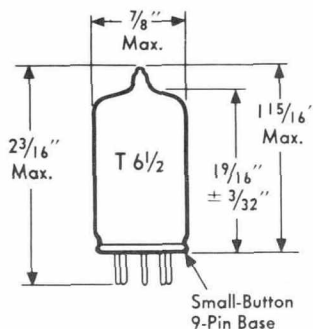
The parallel heater connected 6CN7 has been designed for use in receivers which employ series-connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When it is employed in this type of circuit with other tubes having a heater current rating of 600 ma., heater voltage surges across individual tubes are minimized inasmuch as the heater warm-up characteristic is controlled.

ELECTRICAL

Cathodes	Coated Unipotential	
Heater:	Series	Parallel
Voltage (ac or dc)	6.3 ± 10%	3.15 Volts
Current	0.30	0.60 ± 6% Ampere
Warm-up Time	—	11 Seconds
Direct Interelectrode Capacitances (Unshielded)		
Triode Grid to Plate	1.8	μμf
Triode Input	1.5	μμf
Triode Output	0.5	μμf
Grid to Either Diode Plate	0.006	μμf
Diode 1 Plate to Cathode & Heater	3.6	μμf
Diode 2 Plate to Cathode & Heater	3.6	μμf

MECHANICAL

Bulb	T-6½
Base	9-Pin Miniature (JEDEC E9-1)
Outline	6-2
Basing	9EN
Mounting Position	Any



MAXIMUM RATINGS

Design-Maximum Values

Triode Plate Voltage	330	max.	Volts
Triode Grid Voltage:			
Positive Bias Value	0	max.	Volts
Triode Plate Dissipation	1.1	max.	Watts
Triode Heater-Cathode Voltage:			
Heater Negative with respect to Cathode:			
Total DC & Peak	200	max.	Volts
Heater Positive with respect to Cathode:			
DC Component	100	max.	Volts
Total DC & Peak	200	max.	Volts
Diode DC Plate Current (Each Unit)	5.5	max.	Ma.
Diode Heater-Cathode Voltage:			
Heater Negative with respect to Cathode:			
Total DC & Peak	200	max.	Volts
Heater Positive with respect to Cathode:			
DC Component	100	max.	Volts
Total DC & Peak	200	max.	Volts

CHARACTERISTICS AND TYPICAL OPERATION

Triode Plate Voltage	100	250	Volts
Triode Grid Voltage	-1	-3	Volts
Triode Amplification Factor	70	70	—
Triode Plate Resistance	54000	58000	Ohms
Triode Transconductance	1300	1200	μmhos
Triode Plate Current	0.8	1.0	Ma.
Diode Current at 5 Volts (Each Unit)	—	20	Ma.

