

SHARP-CUTOFF PENTODE TYPES 3DK6, 4DK6 and 6DK6

The 3DK6, 4DK6 and 6DK6 are 7-pin miniature sharp-cutoff pentodes designed for service as wide-band high frequency amplifiers. The very high transconductance at low plate and screen potentials combined with the low interelectrode capacitances make them particularly desirable as if amplifiers in television receivers.

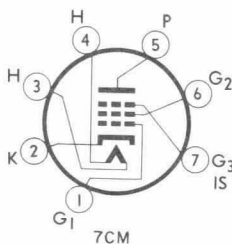
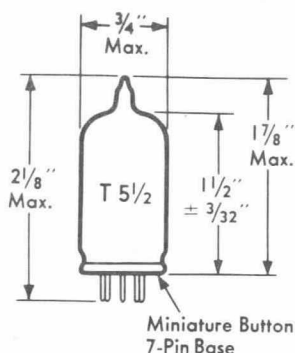
The 3DK6 and the 4DK6 have been designed for use in receivers which employ series connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

ELECTRICAL:

Cathode	.....	Coated Unipotential
Heater:	3DK6 4DK6 6DK6	
Voltage (ac or dc)	3.15 4.2 6.3 ± 10%	Volts
Current	0.6 ± 6% 0.45 ± 6% 0.3	Ampere
Warm-up Time ▲	11 11 ..	Seconds
Direct Interelectrode Capacitances	.....	Unshielded
Grid 1 to Plate	0.025 max.	μpf
Input	6.3	μpf
Output	1.9	μpf

MECHANICAL:

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



MAXIMUM RATINGS:

Design Maximum Values		
Plate Voltage	.....	330 max. Volts
Grid 2 Supply Voltage	.....	330 max. Volts
Grid 2 Voltage	.....	See Grid 2 Input Rating Curve
Plate Dissipation	.....	2.3 max. Watts
Grid 2 Dissipation	.....	0.55 max. Watts
Grid 1 Voltage:		
Positive Value	.....	0 max. Volts
Heater-Cathode Voltage:		
	3DK6 6DK6	
Heater Negative with Respect	4DK6	
to Cathode: DC Component	200	— — max. Volts
Total DC and Peak	300	200 max. Volts
Heater Positive with Respect		
to Cathode: DC Component	100	100 max. Volts
Total DC and Peak	200	200 max. Volts

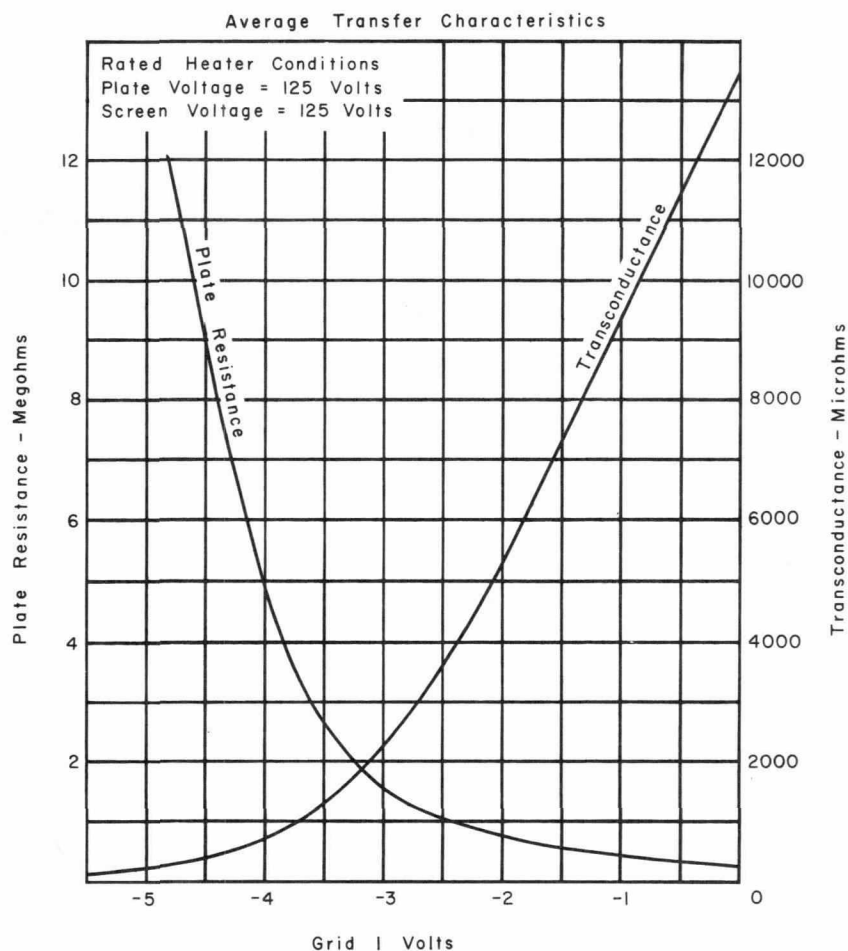
TYPICAL OPERATION AND CHARACTERISTICS:

Plate Voltage	.....	125	Volts
Grid 3 (Suppressor)	.....	Connected to Cathode at Socket	
Grid 2 Voltage	.....	125	Volts
Cathode Bias Resistor	.....	56	Ohms
Plate Resistance (approx.)	.....	0.35	Megohm
Transconductance	.....	9800	μmhos
Plate Current	.....	12.0	Ma.
Grid 2 Current	.....	3.8	Ma.
Grid 1 Cutoff Bias*	.....	-6.5	Volts

NOTES

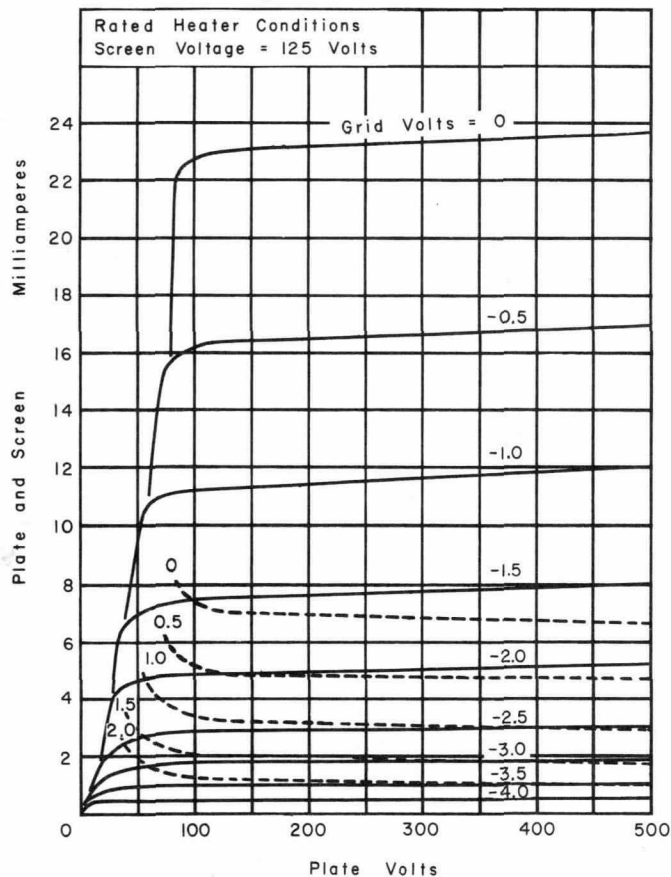
- ▲ Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times rated heater voltage divided by rated heater current.

* For Plate Current of 20 μa



CE-A1260A

Average Plate Characteristics



Average Transfer Characteristics

