

SHARP-CUTOFF TRIODE 2GK5, 3GK5 AND 6GK5

The 2GK5, 3GK5 and 6GK5 are sharp-cutoff, seven-pin miniature triode types designed particularly for service in V.H.F. television tuners as grounded cathode r-f amplifiers.

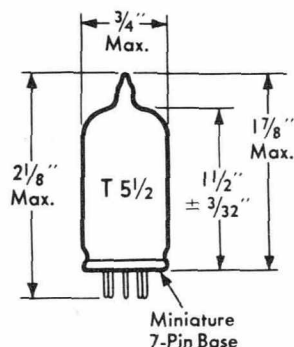
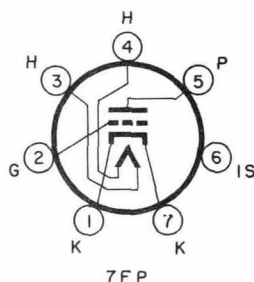
The 2GK5, and 3GK5 have been designed for use in receivers which employ series connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

ELECTRICAL:

Heater Characteristics:	2GK5	3GK5	6GK5	
Voltage ac or dc.....	2.35	3.0	6.3	Volts
Current	0.60	0.45	0.20	Ampere
Warm-up Time (Note 1)	11	11	--	Seconds
Direct Interelectrode Capacitance: (Shielded) (Note 2)				
Grid 1 to Plate	0.52	max.		$\mu\mu\text{f}$
Input	5.0			$\mu\mu\text{f}$
Output	3.5			$\mu\mu\text{f}$
Heater to Cathode	2.5			$\mu\mu\text{f}$

MECHANICAL:

Cathode.....	Coated Unipotential
Bulb	T-5-1/2
Base	Miniature 7-Pin (JEDEC E7-1)
Outline	5-2
Basing	7FP
Mounting Position	Any



RATINGS:

Design Maximum Values

Plate Voltage	200	max.	Volts
Plate Dissipation	2.5	max.	Watts
Grid 1 Voltage:			
Negative Value	50	max.	Volts
Cathode Current	22	max.	Ma.
Grid Circuit Resistance (Self Bias)	1.0	max.	Megohm

Heater Ratings:

Allowable Heater Voltage:	2GK5	3GK5	6GK5	
Maximum	--	--	6.9	max. Volts
Minimum	--	--	5.7	min. Volts
Allowable Heater Current:				
Maximum	640	480	--	max. Ma.
Minimum	560	420	--	min. Ma.

Heater-Cathode Voltage:

Heater Negative with Respect to				
Cathode DC	100	100	100	max. Volts
Heater Positive with Respect to				
Cathode DC	100	100	100	max. Volts

CHARACTERISTICS & TYPICAL OPERATION:

Plate Voltage	135	Volts
Grid 1 Voltage	-1	Volts
Plate Resistance	5400	Ohms
Transconductance	15000	μmhos
Grid 1 Cutoff Bias	See Note 3	
Plate Current	11.5	Ma.
Amplification Factor	78	
Hot Input Resistance (Note 4)	275	Ohms
Hot Input Capacitance (Note 4)	11.2	$\mu\mu\text{f}$
Noise Figure (Note 5)	4.7	db

1. 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.
2. With JEDEC shield No. 316 connected to Pin 1.
3. Grid Volts for $g_m = 150 \mu\text{mhos}$: -4.2
Grid Volts for $g_m = 1500 \mu\text{mhos}$: -2.5
4. Measured at 200 Mc. with plate at signal ground.
5. In a 200 Mc. noise-matched, optimized, neutralized, grounded-cathode triode amplifier stage.