

FERRANTI

COLD CATHODE TRIODES

Gas filled valves of miniature dimensions designed for use as Relay Tubes. These valves are intended for pulse operation with a low duty cycle.

PHYSICAL DETAILS.

	GK32	GK33
Base	None.	
Max. Diameter (glass envelope) ...	15.5 mm.	15.5 mm.
Max. Overall Diameter ...	25.5 mm.	21.5 mm.
Max. Overall Length ...	51.5 mm.	42 mm.
Mounting Position	Any.	

On Type GK32 the electrodes are brought out to CT.1 caps in order to permit mounting in standard clips.

Type GK33 is fitted with flexible leads and is intended to be wired in to the equipment.

On both types the grid is brought out to a side connection and the anode is indicated by a red band.

RATINGS.

Max. Anode Voltage	140 volts DC.
Max. Peak Anode Current ...	20 mA.
Max. Grid Current	500 μ A.

CHARACTERISTICS.

*Trigger Voltage	85-98 volts DC.
**Min. Transfer Current ...	10 μ A.
Average Recovery Time ...	1 millise.

TYPICAL OPERATION.

†Anode Voltage	135 volts DC.
‡Static Bias (positive) ...	80 volts DC.
Transfer Current	2.2 μ A.
Volt Drop across Valve ...	80 volts (approx.).
§Trigger Pulse Amplitude ...	<20 volts.

CAPACITANCES.

C_{g-k}	0.6 pF.
C_{a-k}	0.12 pF.
C_{a-g}	0.1 pF.

*At $V_a = 135$.

**10 microamperes is the minimum current to ensure interchangeability and reliable operation, but transfer currents on individual valves may be considerably lower.

†The anode supply switch should be shunted by a resistor of approximately 30 megohms to prevent surge effects which would cause the valve to fire on switching.

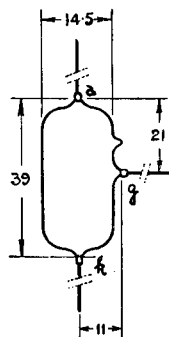
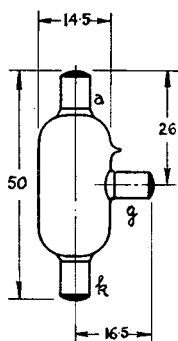
‡Alternatively the static bias may be obtained by connecting the grid to the anode supply voltage through a high resistance of the order of 1000 megohms. Under these conditions the valve will respond to trigger signals of very low amplitude and consistent operation by the same signal can be ensured from valve to valve.

§For operation by pulses of very short duration it is usually necessary to increase the pulse amplitude.

These valves were formerly designated K32 and K33.

GK32

GK33



All dimensions shown are in millimetres (nom.).

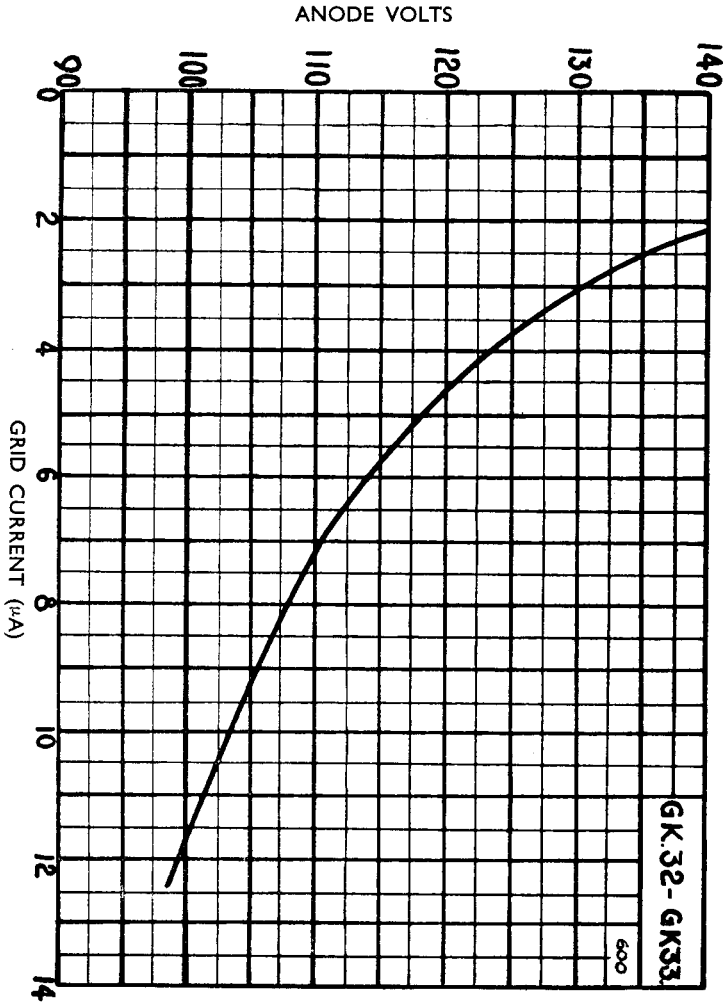




GK32

GK33

AVERAGE TRANSFER CHARACTERISTIC



GK32 - GK33

600