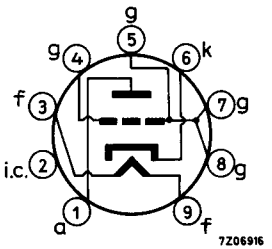
S.Q. TUBE

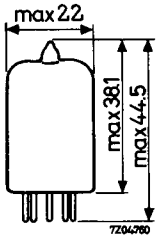
Special quality triode designed for use as grounded grid H.F. and I.F. wide band amplifier.

QUICK REFERENCE DATA			
Life test	1000 hours		
Low interface resistance			
Mechanical quality	Shock and vibration resistant		
Base	Noval		
Heating	Indirect A.C. or D.C.; Parallel supply		
Heater voltage	V_f	6.3	V
Heater current	I_f	300	mA
Anode current	I_a	26	mA
Transconductance	S	24	mA/V

DIMENSIONS AND CONNECTIONS Dimensions in mm

Base: Noval





CHARACTERISTICS

Column I Nominal value or setting of the tube
II Range values for equipment design: Initial spread

		I	II	
Heater voltage	V_f	6.3		V
Heater current	I_f	300	280 - 320	mA
Anode supply voltage	V_a	150		V
Cathode resistor	R_k	60		Ω
Anode current	I_a	26	19 - 33	mA
Mutual conductance	S	24	19 - 29	mA/V
Amplification factor	μ	50		
Negative grid current	$-I_g$		max.0.2	μA
Cut-off voltage Anode current I_a = max. 100 μA	$-V_g$	10		V
Leakage current between cathode and heater Voltage between cathode and heater V_{kf} (cath.pos.) = 100 V	I_{kf}		max. 15	μA
Insulation resistance between electrodes Voltage between electrodes = 300 V	R_{ins}		min. 100	MΩ
Vibrational noise output Anode supply voltage V_{ba} = 150 V Anode resistor R_a = 2 kΩ Negative grid voltage $-V_g$ = 2 V Vibration frequency = 20-2000 Hz Acceleration = 4 g	V_o		max.100	mV

CAPACITANCES

		I	II	
Anode to cathode and heater	$C_{a/kf}$		max. 0.55	pF
Cathode to grid and heater	$C_{k/gf}$	9.0	8 - 10	pF
Anode to grid and heater	$C_{a/gf}$	1.8	1.5 - 1.95	pF

SHOCK AND VIBRATION RESISTANCE

The following test conditions are applied to assess the mechanical quality of the tube. These conditions are not intended to be used as normal operating conditions.

Shock

The tube is subjected 5 times in each of 4 positions to an acceleration of 500 g supplied by an NRL shock machine with the hammer lifted over an angle of 30°.

Vibration

The tube is subjected during 32 hours in each of 3 positions to a vibration frequency of 50 Hz with an acceleration of 2.5 g.

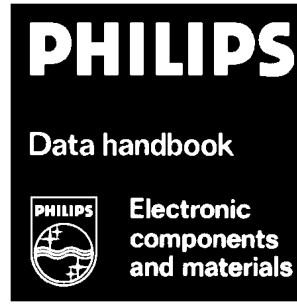
LIFE

Production samples are tested during 1000 hours.

LIMITING VALUES Absolute maximum rating system

Anode voltage	V_{a_o}	max.	400	V
	V_a	max.	200	V
Anode dissipation	W_a	max.	4.5	W
Grid voltage	$-V_g$	max.	50	V
Grid peak voltage	$-V_{g_p}$	max.	100	V
Cathode current	I_k	max.	38	mA
Voltage between cathode and heater	V_{kf}	max.	60	V
Bulb temperature	t_{bulb}	max.	160	°C
Grid resistor: fixed bias	R_g	max.	0.15	MΩ
automatic bias	R_g	max.	0.3	MΩ

Heater voltage: The average heater voltage should be 6.3 V.
Variations of the heater voltage exceeding the range of 6.0 to 6.6 V will shorten the tube life.
The tolerance of heater current (column II) should be taken into account.



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