

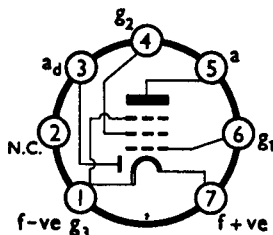


MINIATURE DIODE-PENTODE 1.4V DIRECTLY HEATED

ZD17

MAY, 1953

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside
of base.

Base : B7G
Bulb : Tubular.

Overall length : 49—55 mm.
Seated length : 43—49 mm.
Max. diameter : 19 mm.

RATING

Pentode connection :

V_f	1.4	V
I_f	50 approx.	mA
V_a	90 max.	V
V_{g2}	90 max.	V
I_k	3 max.	mA
r_a	$\left\{ \begin{array}{l} 0.6 \\ 0.63 \end{array} \right.$	$M\Omega$
g_m		mA/V
at $V_a = V_{g2} = 67.5$, $V_{g1} = 0$		

Triode connection :

V_a, g_2	90	max.	V
I_k	3	max.	mA
μ	$\left\{ \begin{array}{l} 14 \\ 17.5 \\ 0.8 \end{array} \right.$		$\left\{ \begin{array}{l} k\Omega \\ mA/V \end{array} \right.$
r_a			
g_m			
at $V_a = g_2 = 67.5, V_{g1} = 0$			

TYPICAL OPERATION

Pentode connection :

V_{ab}	45	67.5	90	V
V_{g2b}	45	67.5	90	V
V_{g1}	0	0	0	V
R_a	0.5—1	0.5—1	0.5—1	$M\Omega$
R_{b-g2}	$R_a \times 5$	$R_a \times 5$	$R_a \times 5$	$M\Omega$
R_{g1-k}	10	10	10	$M\Omega$
V_{gain}	30	40	50	

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CAPACITANCES (of cold unscreened valve)

c_{gl-all}	2.2	pF	c_{a-all}	2.4	pF	c_{gl-a}	0.2	pF
c_{d-gl}	0.5	pF	c_{d-a}	0.45	pF	c_{d-f}	1.4	pF

FILAMENT OPERATION

When operating the filament from a mains supply, the voltage should be adjusted to 1.3 or the current to 47.5 mA mean. Under certain conditions, a suitable shunt resistor will be required.

SCREENING

No internal or external screening is fitted to the valve.

MOUNTING

Any position.

RETAINING

A retaining device should be used.

VENTILATION

No special precautions are necessary.

MICROPHONY

Although this is of a very low order, equipment should be designed to minimise microphony.

