

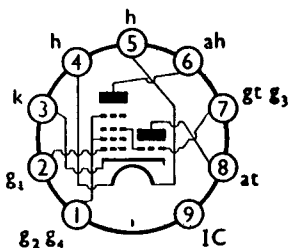


# MINIATURE TRIODE-HEXODE 6.3v INDIRECTLY HEATED

**X79**  
OCTOBER, 1951

A frequency changer for operation up to 100 Mc/s.

### BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside of base.

Base : B9A  
Bulb : Tubular.

Overall length : 49—55 mm.  
Seated length : 43—49 mm.  
Max. diameter : 22 mm.

### RATING

$V_h$	6.3	V
$I_h$	0.3 approx.	A
$V_{ah}$	250 max.	V
$V_{g2, g4}$	100 max.	V
$V_{at}$	100 max.	V
$I_k$	20 max.	mA
$v_{gt}$ (pk)	10 opt.	V

### TRIODE SECTION ONLY

At  $V_a = 100$ ,  $V_g = 0$

$I_a$	10	mA
$\mu$	22	
$g_m$	2.8	mA/V

### CAPACITANCES (of unscreened valve)

$C_{g1-ah}$	0.11	pF	$C_{g1-all}$	4.1	pF
$C_{g1-at}$	0.08	pF	$C_{at-all}$ (gt earthed)	1.5	pF
$C_{g1-gt}$	0.22	pF	$C_{gt-all}$ (at earthed)	5.47	pF
$C_{gt-at}$	1.48	pF	$C_{ah-all}$	4.34	pF

### TYPICAL OPERATION

$V_a$	250	V	
$V_{g2, g4}$	75	V	
$V_{at}$	100	V	
$v_{gt}$ (pk)	10	V	
$V_{g1}$	0	V	
$I_a$	4.5	mA	
$I_{g2, g4}$	3.4	mA	
$I_{at}$	4.5	mA	
$g_c$	780 at $V_{g1}=0$	} $v_{gt}$ (pk) = 0 {	
$g_c$	7.8 at $V_{g1}=-21$		$\mu A/V$
$Z_c$	0.7 at $V_{g1}=0$		M $\Omega$
$R_{gt-k}$	0.05	M $\Omega$	
* $r_{g1-k}$	3500	$\Omega$	
* $C_{g1-k}$	6	pF	
† $r_{g1-k}$	150	k $\Omega$	
* at : $V_{ah} = 175$ ,	$V_{g2, g4} = 75$ ,	$V_{g1h} = 0$ ,	$f = 45$ Mc/s.
† at : $V_{ah} = 175$ ,	$V_{g2, g4} = 75$ ,	$V_{g1h} = 0$ ,	$v_{gt, g3}$ (pk) = 10

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## SCREENING

No internal or external screening is fitted to the valve. A separate screening can should be used.

## MICROPHONY

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

## RETAINING

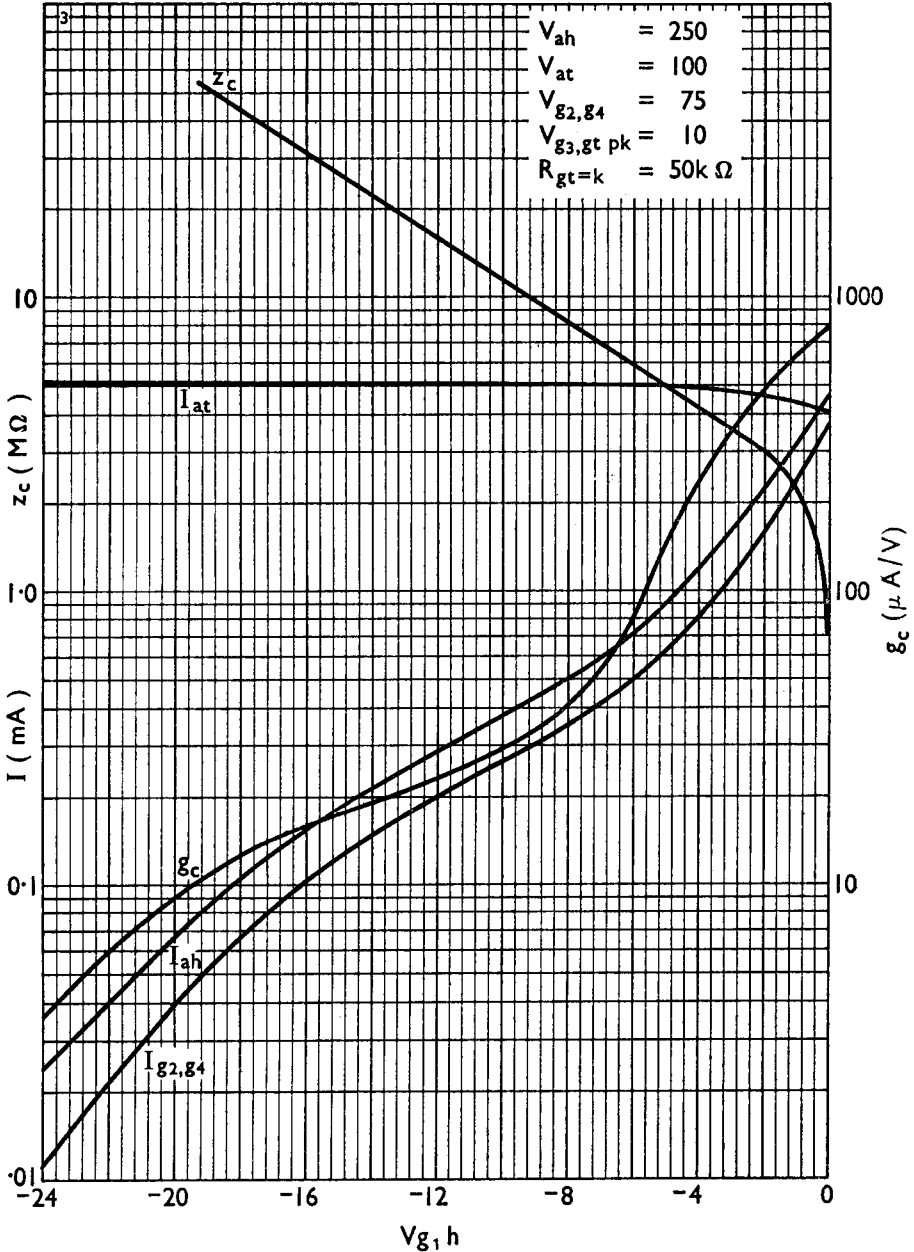
A retaining device should be used.

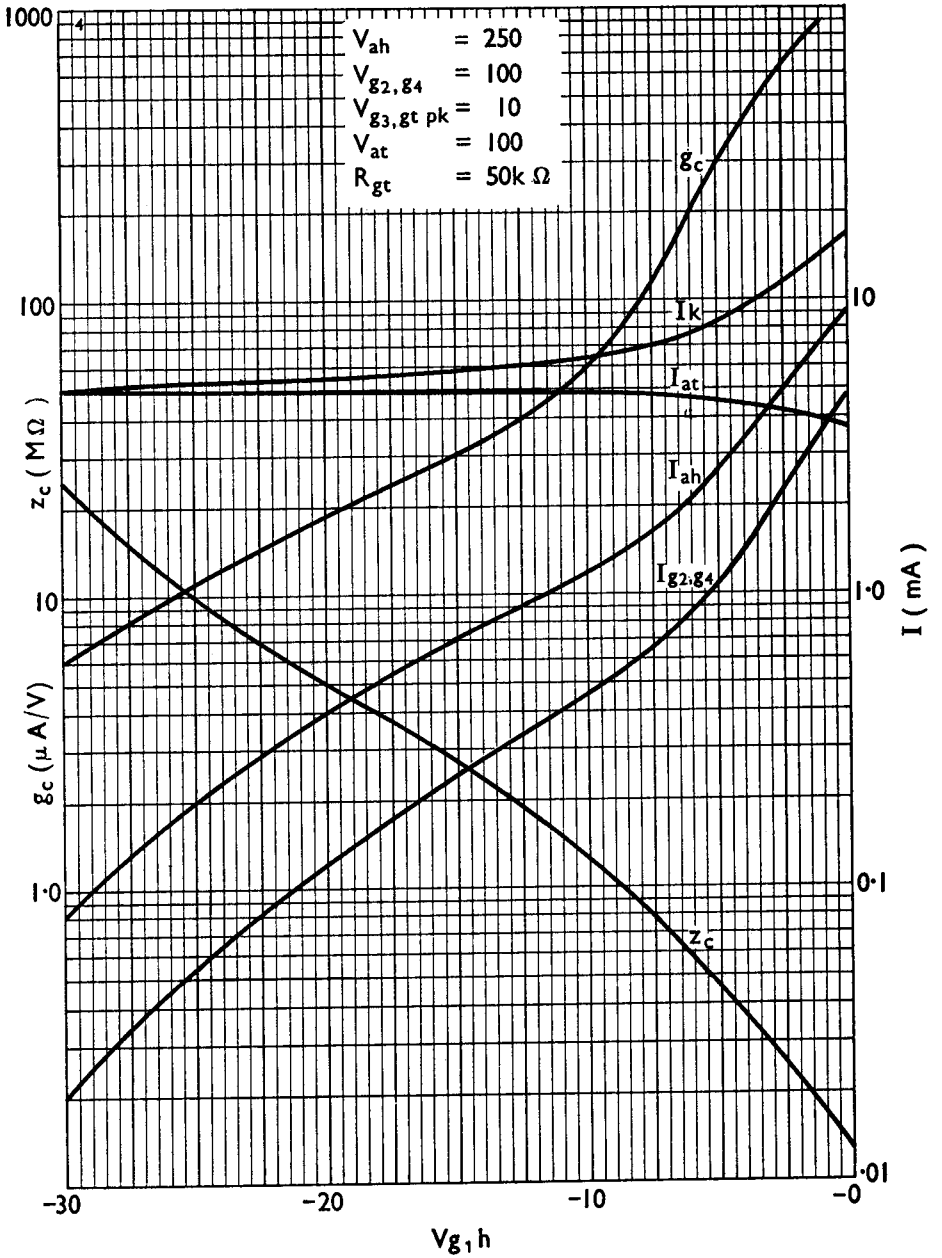
## VENTILATION

No special precautions.

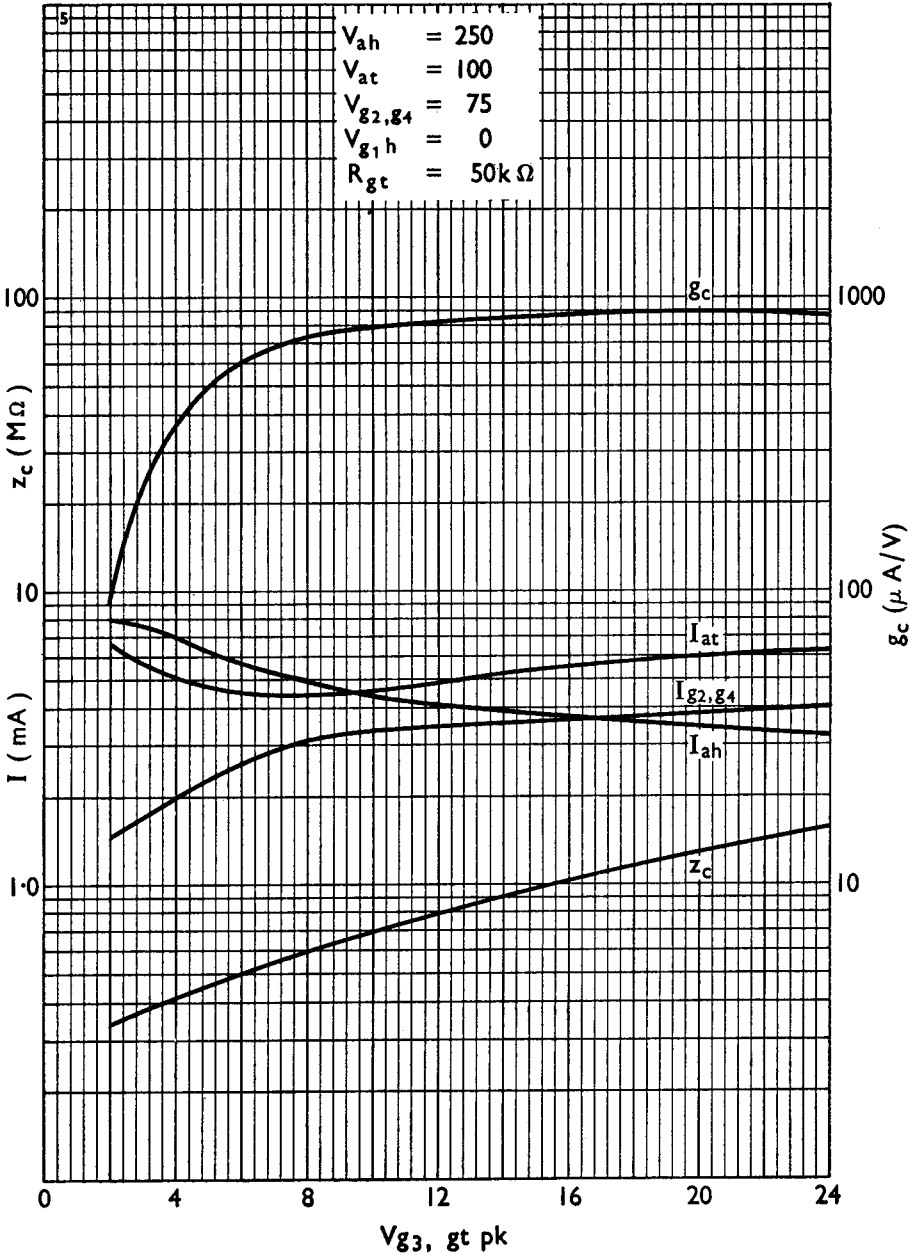
## MOUNTING

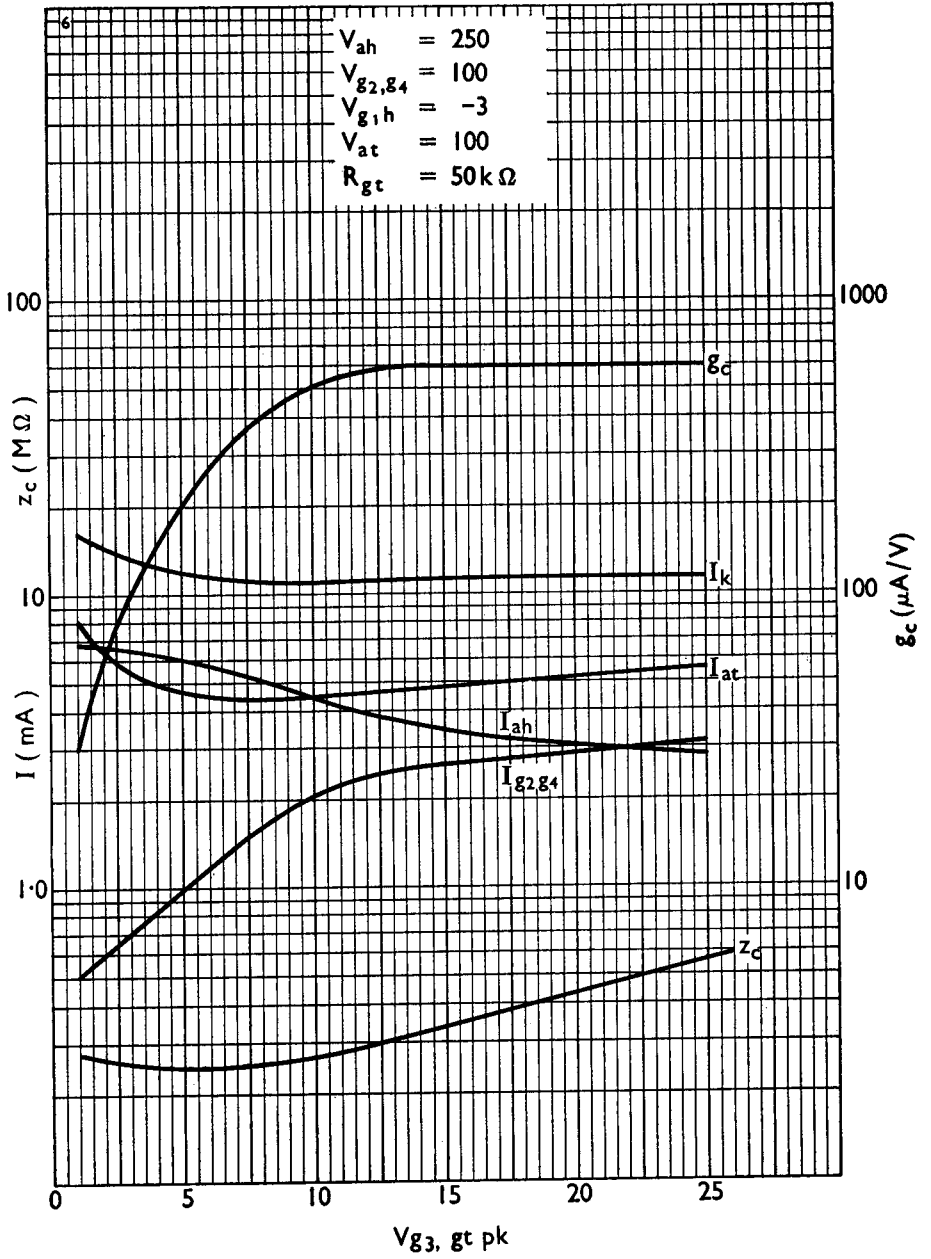
Any position.





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