



# Triode Type ACT28

UHF DISC SEAL PULSED OSCILLATOR

**General.** The ACT28 is a forced-air-cooled disc seal triode, fitted with an indirectly-heated oxide-coated cathode, intended for use as a pulsed oscillator in common grid co-axial circuits at frequencies up to 400 Mc/s.

**Cooling.** The flow of air to the anode should be 150 cu. ft. per minute at a pressure equal to 3 in. water gauge.

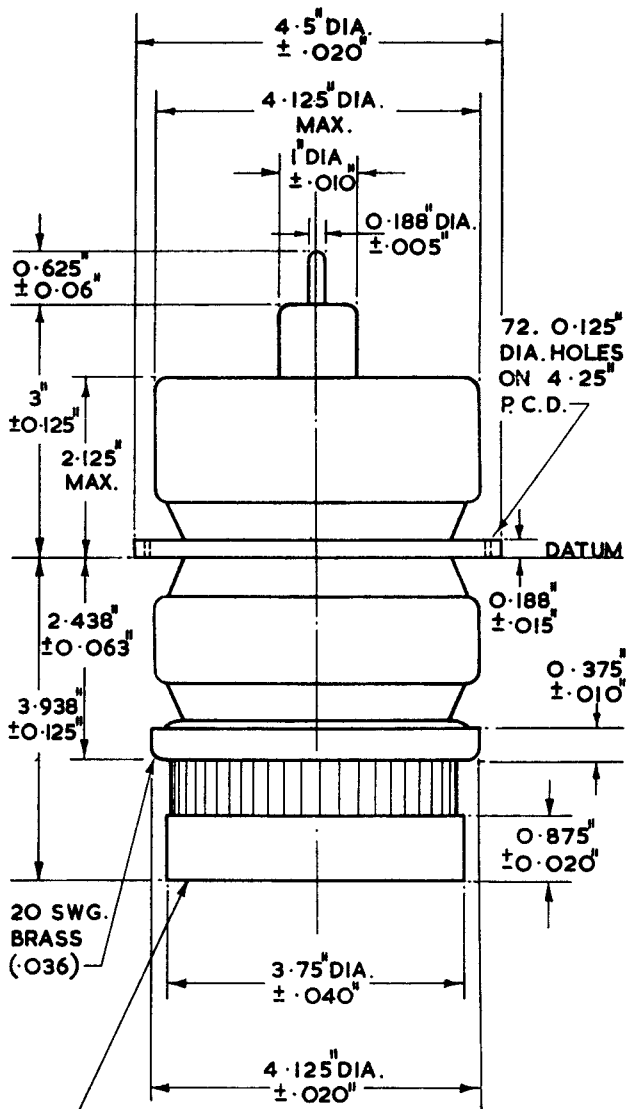
The external grid seal also requires air cooling. The volume of air necessary being approximately 20 cu. ft. per minute.

All cooling supplies must be in operation before applying any voltage to the valve and should continue for at least two minutes after the removal of all voltages.

**H.T. Switching.** The heater must be on for at least four minutes before the application of the anode voltage.

**Mounting.** The valve should be mounted in a vertical position. Rigid connections may be made to only one electrode.

The holes in the grid ring are provided for cooling and must not be used for fixing purposes.



3. 2BA TAPPED HOLES  
0.375" DEEP EQUALLY  
SPACED ON 1.5" P.C.D.  
SPACED WITHIN .020"  
OF TRUE CENTRES.

MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED

Marconi House, Chelmsford. Telephone: Chelmsford 3221. Telex: 1953. Telegrams: Expanse Chelmsford Telex

**Dimensions of Circuit Elements.** The following information about suitable co-axial cavities is given as a guide to designers.

Inside diameter of anode line	4.75	in.
Outside diameter of grid line	4	in.
Characteristic impedance	10.5	$\Omega$
Frequency	200 400 400 600	Mc/s.
Line length	34 14 46 37.5	cm.
Mode	$\lambda/4$ $\lambda/4$ $3\lambda/4$ $3\lambda/4$	

#### APPROXIMATE DATA

<b>Heater</b>		
$V_h$	16	V
$I_h$ approx.	7.3	A

#### Characteristics

$V_a$	1.5	kV
$I_a$	0.8	A
$g_m$	50	mA/V
$\mu$	45	

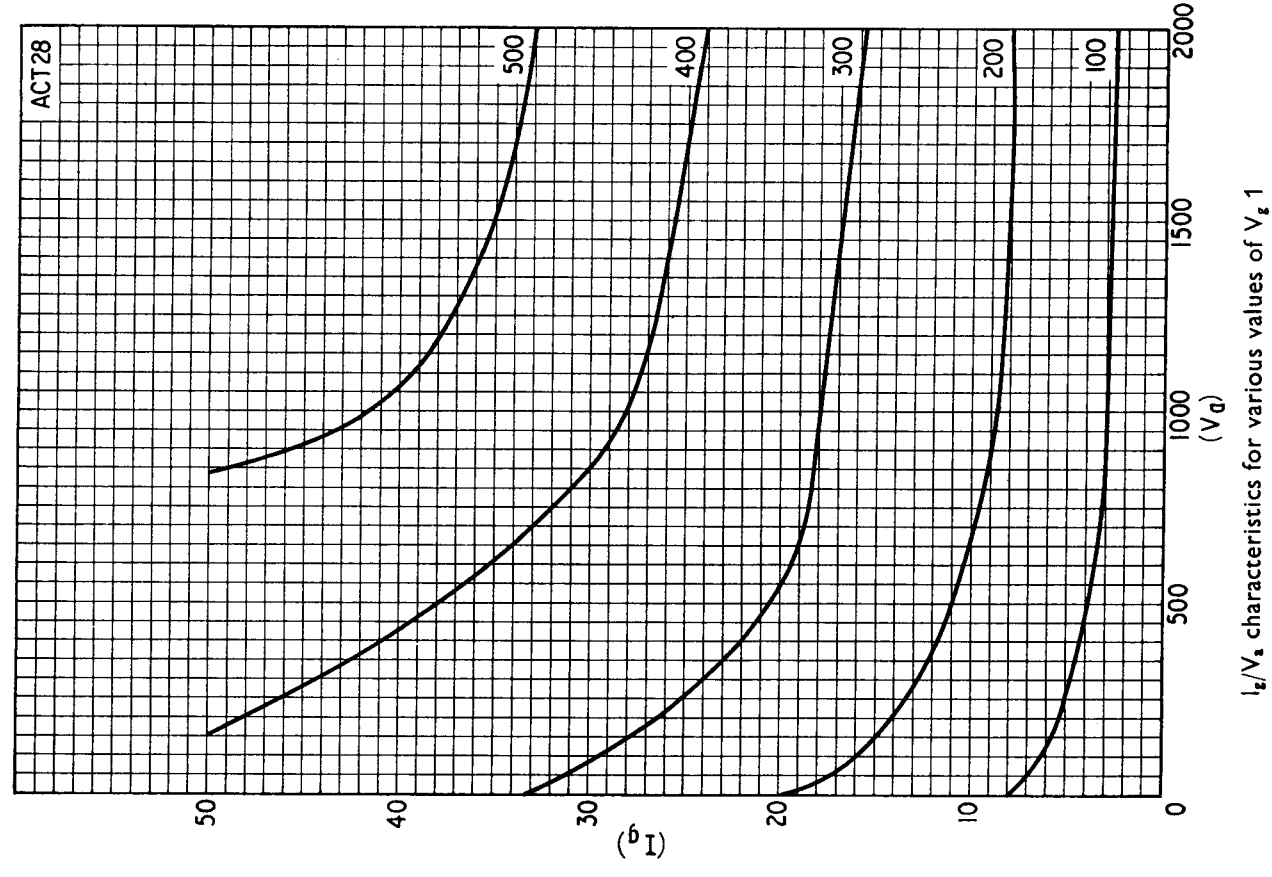
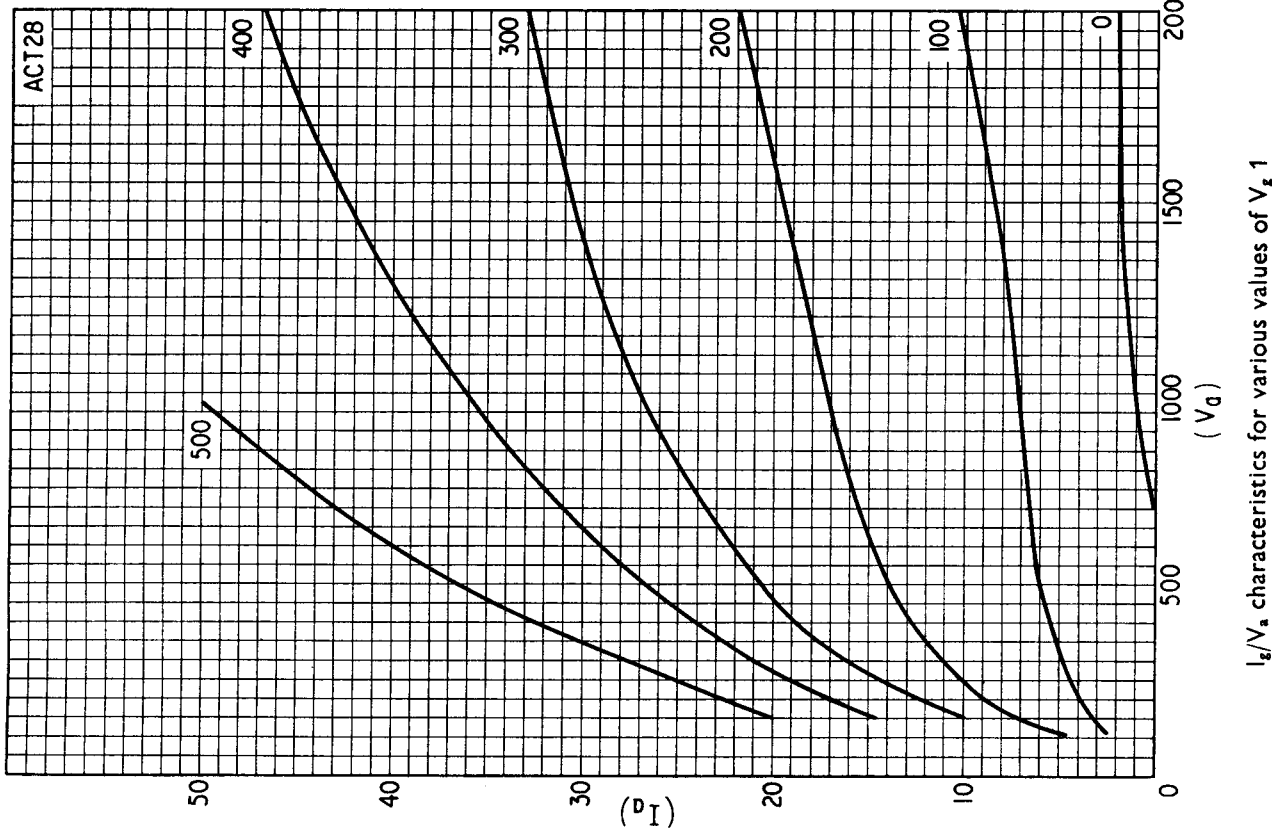
#### Maximum Ratings

$V_a$ (pulse) (max.)	11	kV
$P_a$ (max.)	1.5	kW
$I_a$ (av) (during pulse) (max.)	50	A
t pulse (max.)	5	$\mu s$

#### Capacitances

$C_{a-g}$	28	pF
$C_{g-k}$	30	pF
$C_{a-k}$	0.5	pF

---





PRINTED IN ENGLAND