



**FORCED-AIR COOLED  
DISC SEAL  
PULSE OSCILLATOR TRIODE**

**ACT28A**

ISSUE 1

The ACT28A is a triode with an indirectly heated oxide coated cathode intended for use as an oscillator at frequencies up to 600Mc/s under pulsed or c.w. conditions. A pulse output of about 300kW per valve is attainable at 220Mc/s.

**HEATER**

$V_h$	16	V
$I_h$	7.3 (approx)	A

The heater must be on for four minutes before anode voltage is applied.

**MAXIMUM RATINGS (Absolute)**

$V_a$ (pulse)	13	kV
$P_a$	1.5	kW
$I_{a(av)}$ (during pulse)	50	A
$t_p$	10	$\mu$ s

**CAPACITANCES**

$c_{a-g}$ : 28pF;	$c_{g-k}$ : 30pF;	$c_{a-k}$ : 0.5pF
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**CHARACTERISTICS**

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

**CIRCUIT DIMENSIONS**

The following information is given as a guide to suitable coaxial cavities:

Anode line i.d.: 4.75in.      Grid line o.d.: 4in.

Characteristic impedance: 10.5  $\Omega$

Frequency:	200	400	400	600	Mc/s
Line Length:	34	14	46	37.5	cm
Mode:	$\lambda/4$	$\lambda/4$	$3\lambda/4$	$3\lambda/4$	—

**INSTALLATION**

The valve must be mounted vertically and rigid connection made to one electrode only. The holes in the grid ring are provided for cooling: fixing bolts must not be placed in them.

**COOLING**

Before applying any voltages to the valve, all cooling supplies must be in operation. They should preferably continue for at least two minutes after removal of all voltages.

Air flow to anode: 150cu.ft./min. at 3in. water gauge

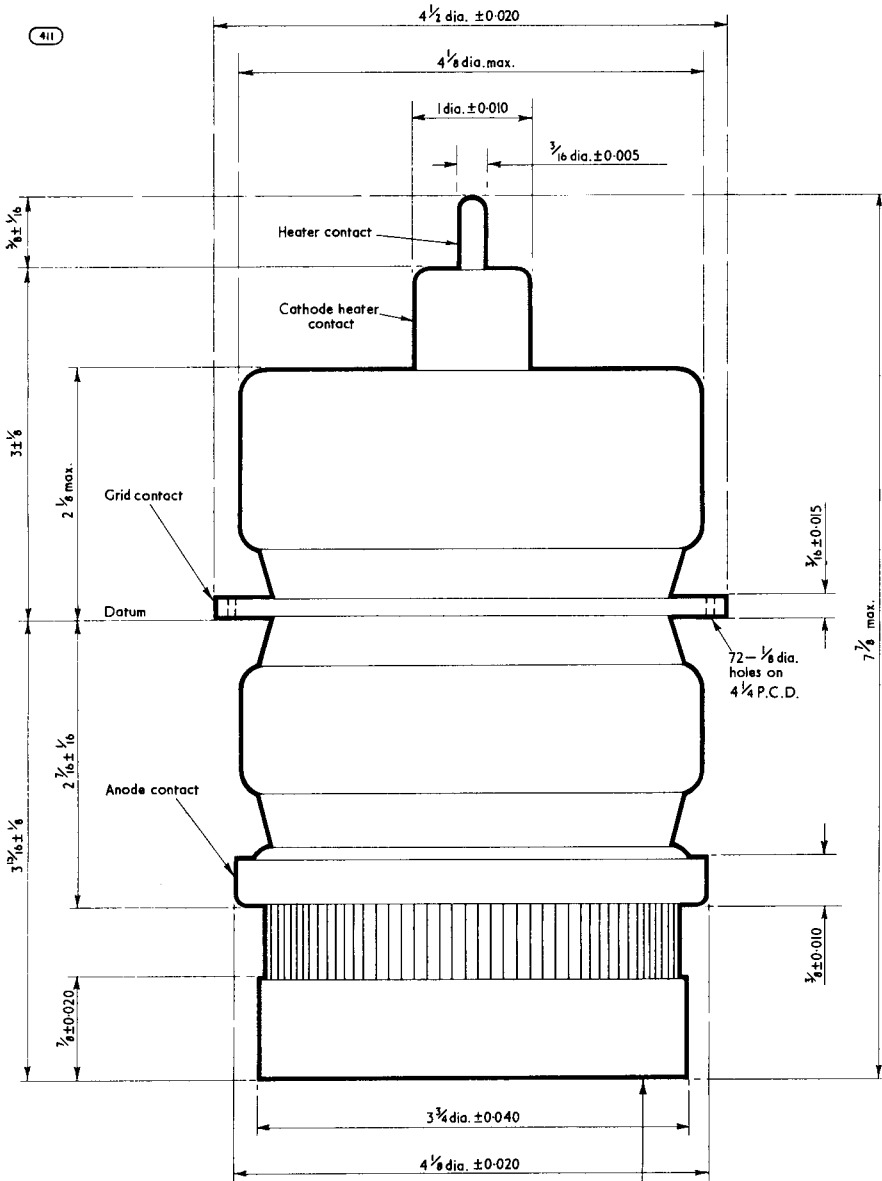
Air flow to grid seal: 20cu.ft./min.

**MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED**

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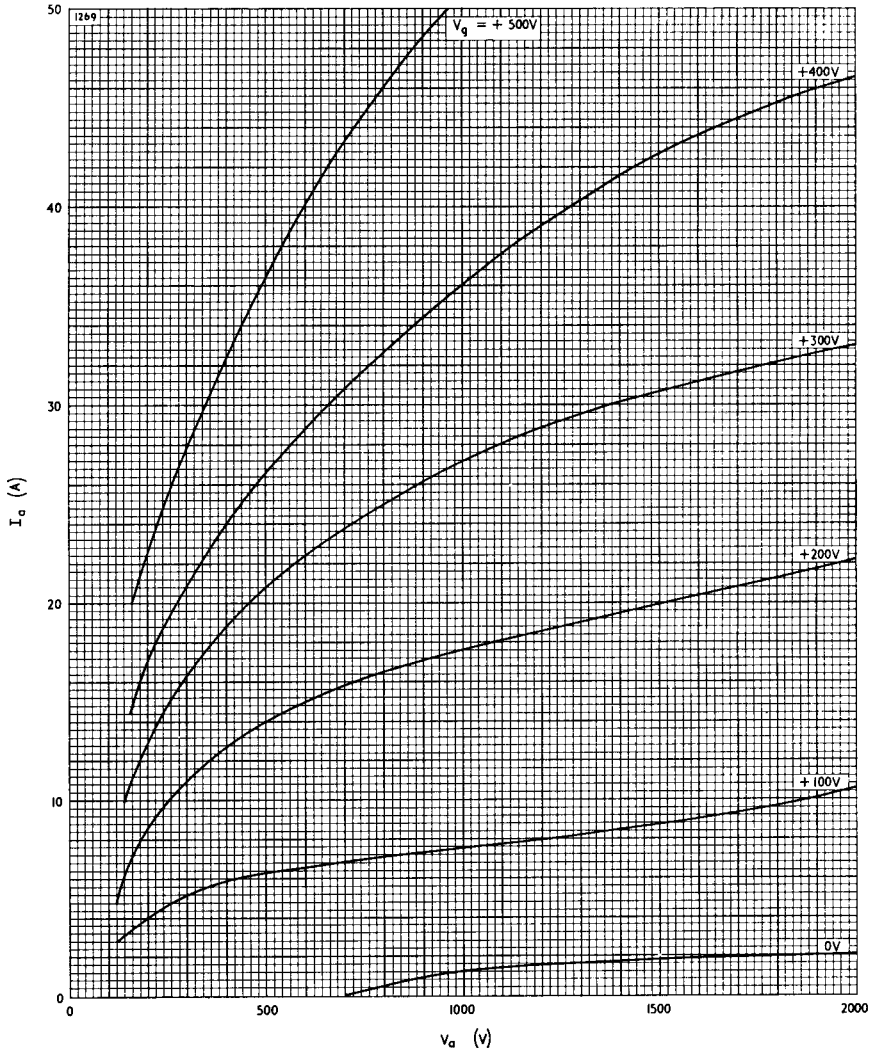
**DECEMBER 1961**

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3 Holes tapped 28A x 3/8 deep, equally spaced on 1.5 P.C.D. spaced within 0.020 of true centres.

*Dimensions in inches.*



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