

The CV6055 is a pulse version of the ACT22 (CV257) primarily intended for use as a pulsed oscillator or amplifier at frequencies up to 1000Mc/s.

HEATER

V_h	6.3	V
I_h	4 (approx)	A

MAXIMUM RATINGS (Absolute)

V_a	4.5	kV
V_{a-g}	4.5	kV
$-V_g$	400	V
$+v_g(pk)$	750	V
P_a	75	W
P_g	2.0	W
$I_k(pk)$	40	A
I_k	400	mA
$*I_k(pulse)$	10	A
$\dagger T_{seal}$	140	$^{\circ}C$

* $I_k(pulse)$ is the mean cathode current during the pulse. In all cases where this exceeds the d.c. cathode current (I_k) rating, the total charge drawn from the cathode in one pulse should not exceed 100 microcoulombs.

\dagger See "Cooling".

CAPACITANCES (Measured at 1Mc/s on a cold unscreened valve)

c_{g-k} : 10.5pF ;	c_{a-k} : 0.3pF ;	c_{g-a} : 6.5pF
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CHARACTERISTICS

V_a	500	V
I_a	100	mA
$-V_g$	12 (approx)	V
g_m	16	mA/V
μ	22	—

TYPICAL OPERATION

Pulsed R.F. Power Amplifier

f	500	1000	Mc/s
η	60	40	%
Gain	11	8	dB

CV6055

CIRCUIT DESIGN

The CV6055 is designed for use in coaxial circuits in which the anode is connected to the inner line. The performance data given was obtained with an anode/grid line of 59Ω characteristic impedance. The dimensions of the anode line and the line lengths required for a range of wavelengths are shown in fig. 3.

COOLING

For full rated anode dissipation in ambient temperatures up to 30°C , the air flow to the anode must be 5 cu. ft./min minimum at about 2 in. static water gauge.

The temperature of the glass to metal seals must not exceed 140°C . An air flow may be required to ensure this. The temperature may be checked with "Tempilac" paint, obtainable from J. M. Steel & Co. Ltd., 36 Kingsway, London, W.C.2.

INSTALLATION

The valve may be mounted in any position. Rigid connections must not be made to more than one electrode.

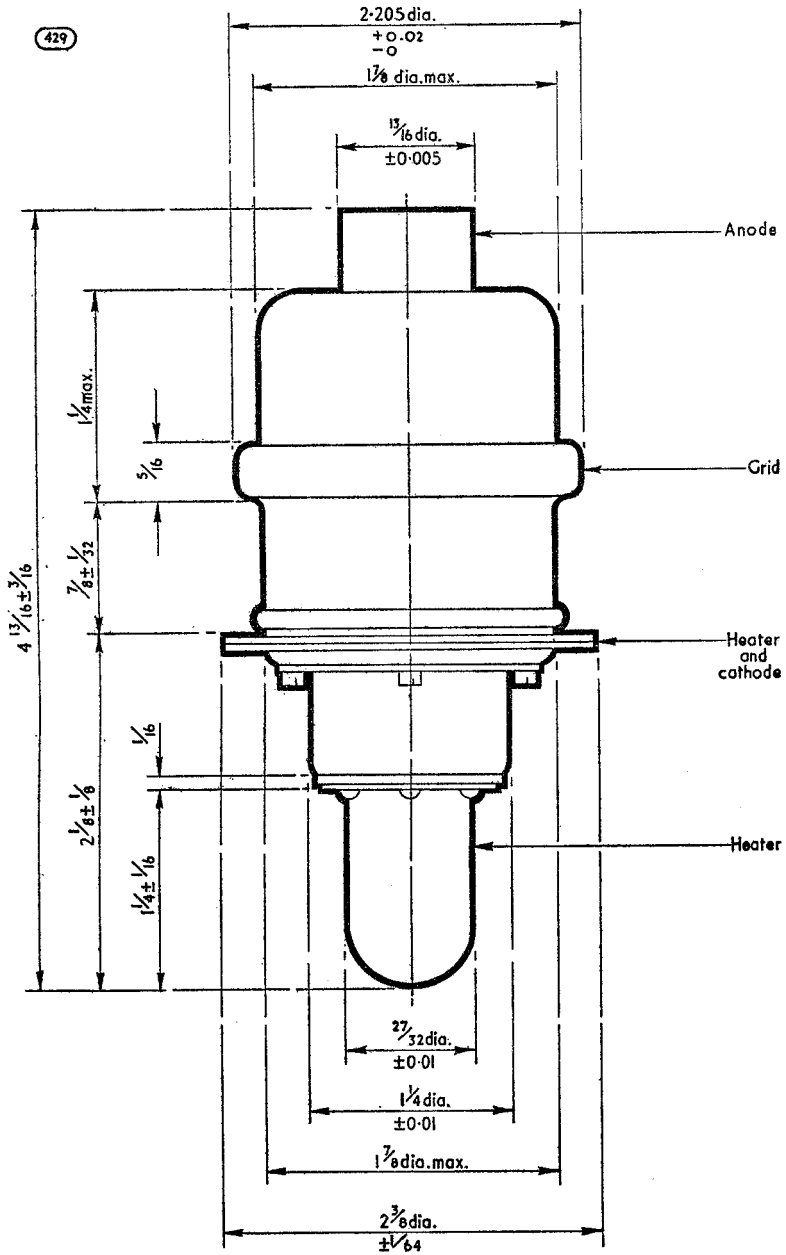


Fig. 1.

Dimensions in inches.

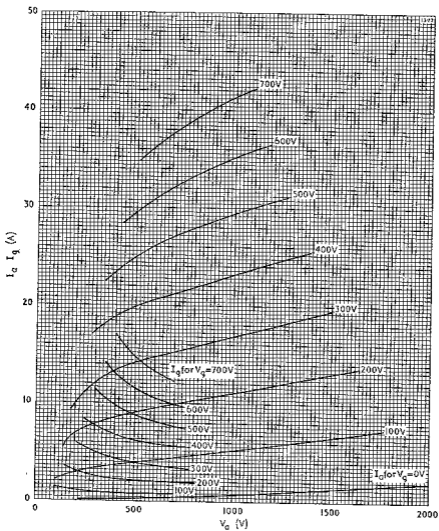


Fig. 2.

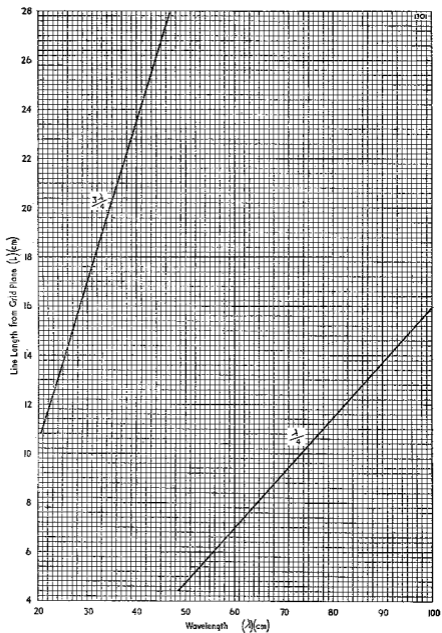


Fig. 3. Grid-anode line lengths for unloaded circuit.

$Z_0=59\Omega$; grid line : 2 in. i.d. ; anode line : 0.74 in. o.d.