

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	°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

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

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.

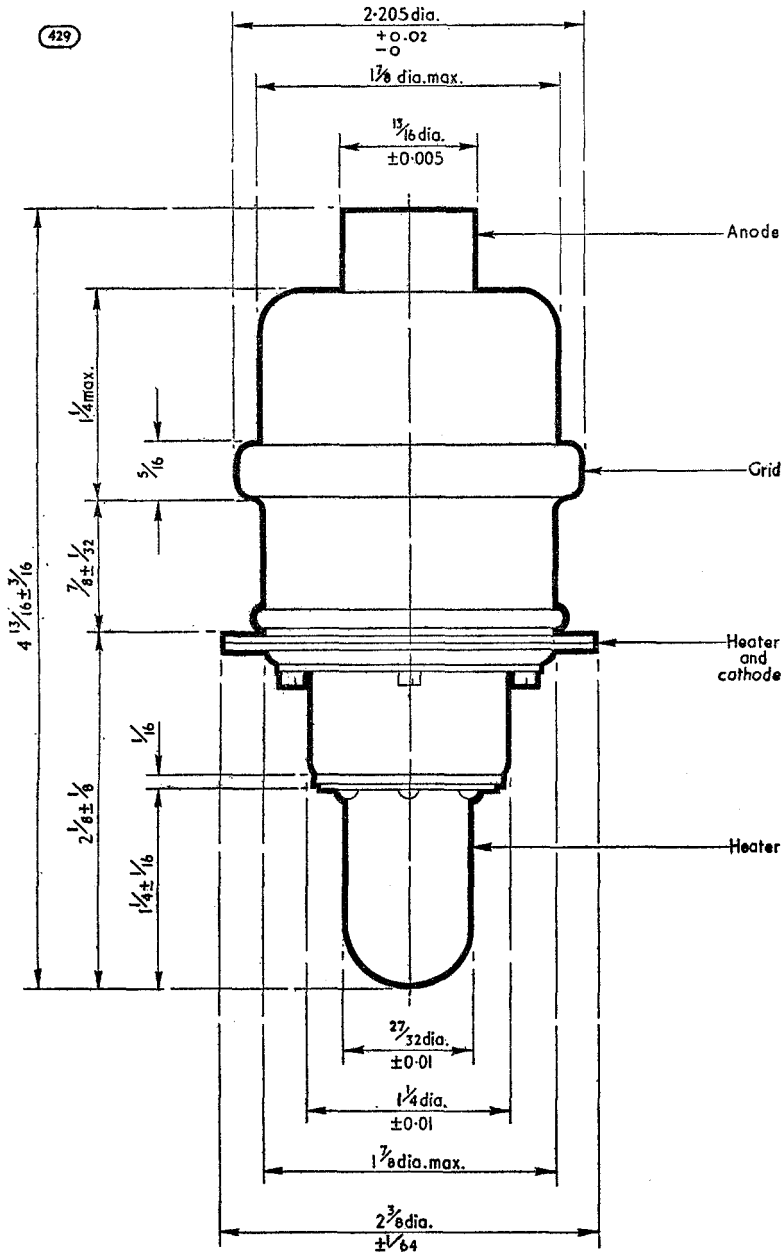


Fig. 1.

Dimensions in inches.

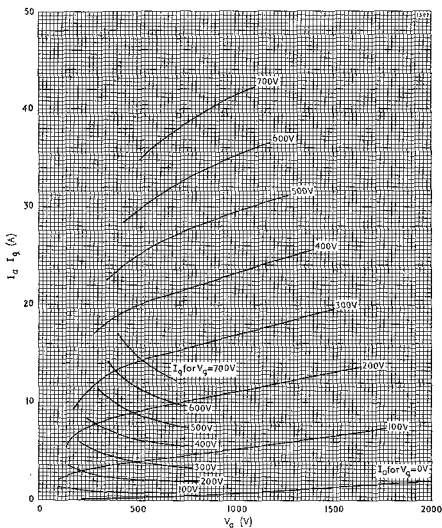


Fig. 2.

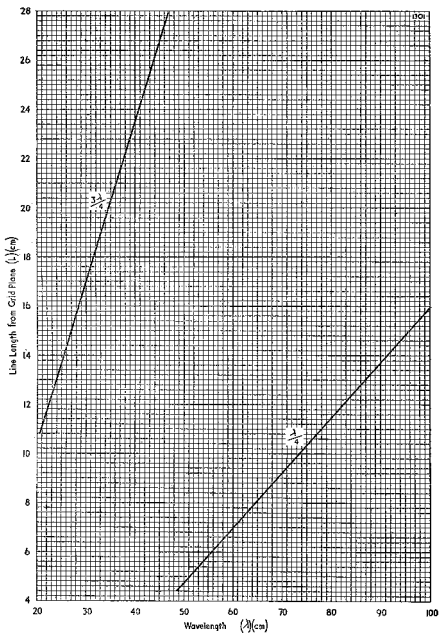


Fig. 3. Grid-anode line lengths for unloaded circuit.
 $Z_0 = 59\Omega$; grid line : 2 in. i.d. ; anode line : 0.74 in. o.d.