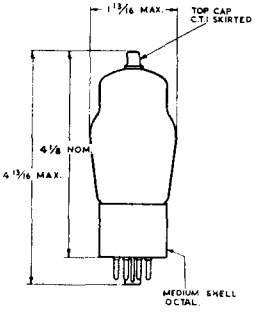
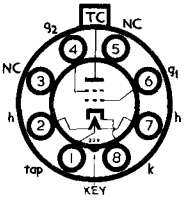


TYPE 3D21A
BEAM TETRODE



The SV-3D21A has been developed primarily for use as a blocking oscillator and pulse modulator. It is also suitable for use as a deflection amplifier, regulator or series valve in high voltage power supplies.
It is directly equivalent to the U.S.A. 3D21A type.

CATHODE

Indirectly-heated, oxide-coated.
Centre tapped heater. The two heater sections may be connected either in series or in parallel.

Heater voltage	6.3 or 12.6	V
Nominal current	1.7 or 0.85	A
Minimum cathode heating time	30	secs

CHARACTERISTICS

Mutual Conductance {Measured at V_a 600 V, Vg_2 300 V : Vg_1—30 V}	5.5	mA/V

DIRECT INTERELECTRODE CAPACITANCES

Input	19	pF
Output	10	pF
Anode to Grid	1	pF

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Pulse Operation

Maximum Ratings

† *Maximum direct anode supply voltage	3.5	kV
Maximum direct anode dissipation	15	W
Maximum peak anode voltage, including transient ...	5	kV
†Maximum direct screen supply voltage	850	V
Maximum direct screen dissipation	3	W
Maximum negative grid voltage including transient ...	—500	V
Maximum positive peak grid voltage	220	V
Maximum grid dissipation	0.5	W
Maximum heater cathode voltage	150	V
‡Maximum pulse length	10	μsec

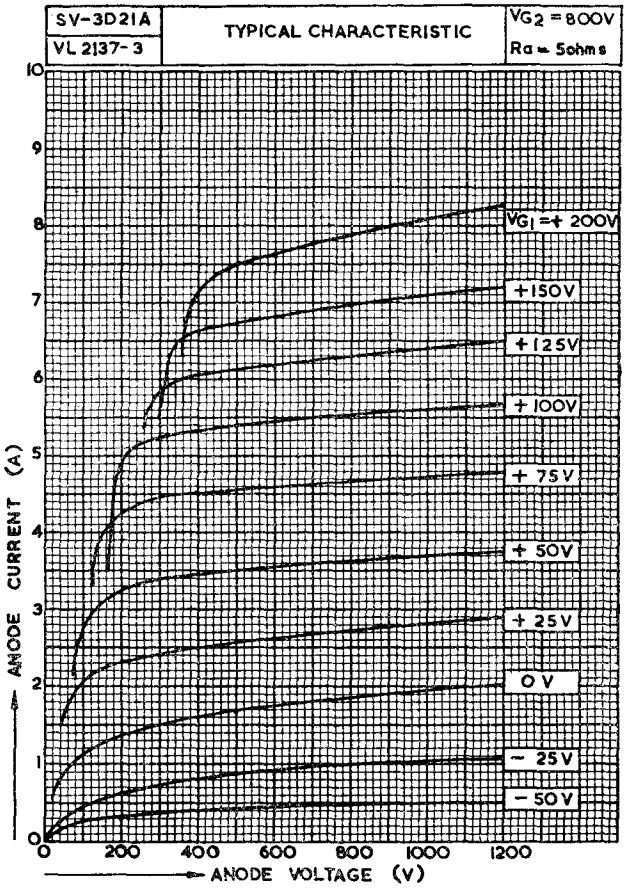
Continued overleaf

Typical Operating Conditions

Direct anode voltage	1.5	2.5	3.5	kV
Direct screen voltage	800	800	800	V
Direct grid voltage	—150	—150	—150	V
Peak pulse grid voltage	300	300	300	V
Load resistor	160	305	450	Ω
Power output, peak, approx.	7	14	21	kW

* With a screen voltage not exceeding 400 volts D.C. and when no instantaneous anode voltage due to transient is present (essentially resistive anode load), a maximum anode voltage of 4,500 volts D.C. may be used.

† Series resistance must be inserted in the power supply to limit the D.C. short circuit current to less than 0.5 ampere.

‡ Total pulse length in any 240 micro-second period must not exceed 12 micro-seconds.

For full technical details, apply to Standard Telephones & Cables Ltd., Special Valve Sales, Connaught House, Aldwych, London, W.C.2.