from JEDEC release
#2397, March 2, 1959

TYPE 7ED7

GENERAL

The 30F5 is intended for use as a straight television pentode and is suitable for AC/DC series operation.

RATING

Heater Current (amps)	I_h	0·3
Heater Voltage (volts)	V_h	7·3
Maximum Anode Voltage (volts)	$V_{a(max)}$	250
Maximum Screen Voltage (volts)	$V_{g_2(max)}$	250
Maximum Anode Dissipation (watts)	$P_{a(max)}$	3§
Maximum Screen Dissipation (watts)	$P_{g_2(max)}$	1§
Maximum Heater to Cathode Voltage (volts) (r.m.s.)	$V_{h-k(max)}$	200†
Maximum Resistance Control Grid to Cathode (kΩ)	$R_{g-k(max)}$	600‡
Mutual Conductance (mA/V)	g_m	8.8*
Inner Amplification Factor	μ_{g_1,g_2}	55*

* At $V_a = V_{g_2} = 170$ volts. $V_{g_1} = -1·9$

§ With a grid cathode resistance not exceeding 10,000 ohms

† From Cathode to higher potential heater pin

‡ With maximum anode dissipation 2 watts, maximum screen dissipation 0·5 watts and assuming a common anode and screen decoupling resistance of not less than 2,200 ohms ±10%

INTER-ELECTRODE CAPACITANCES (pF)

		‡	§
Grid/Earth	c_{in}	9·0	10·3
Anode/Earth	c_{out}	4·4	5·7
Anode/Grid	c_{g_1-a}	0·0073	0·0077

"Earth" denotes the remaining earthy potential electrodes, shields and heater joined to cathode.

‡ Inter-electrode capacitances with holder capacitance balanced out.

§ Total inter-electrode capacity including B9A ceramic holder without skirt or radial shield (Carr Fastener holder type 77,076).

DIMENSIONS

Maximum Overall Length (mm)	67·5
Maximum Diameter (mm)	22·2
Maximum Seated Height (mm)	60·5
Approximate Nett Weight (ozs)	¾
Approximate Packed Weight (ozs)	1

MOUNTING POSITION—Unrestricted.

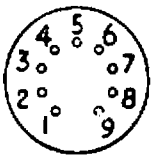
TYPICAL OPERATION

Anode Voltage (volts)	V_a	170
Screen Voltage (volts)	V_{g_2}	170
Grid Bias Voltage (volts)	V_{g_1}	—1·9
Anode Current (mA)	I_a	10
Screen Current (mA)	I_{g_2}	2·6
Mutual Conductance (mA/V)	g_m	8·8
Input Loss at 45 Mc/s (ohms)	$r_{g_1-k(w)}$	16,000*
Equivalent grid noise resistance (ohms)	R_{eq}	750

* With grid circuit ONLY returned to pin 3

BULB—Clear T 6½

BASE—Noval (B9A) E 9-1

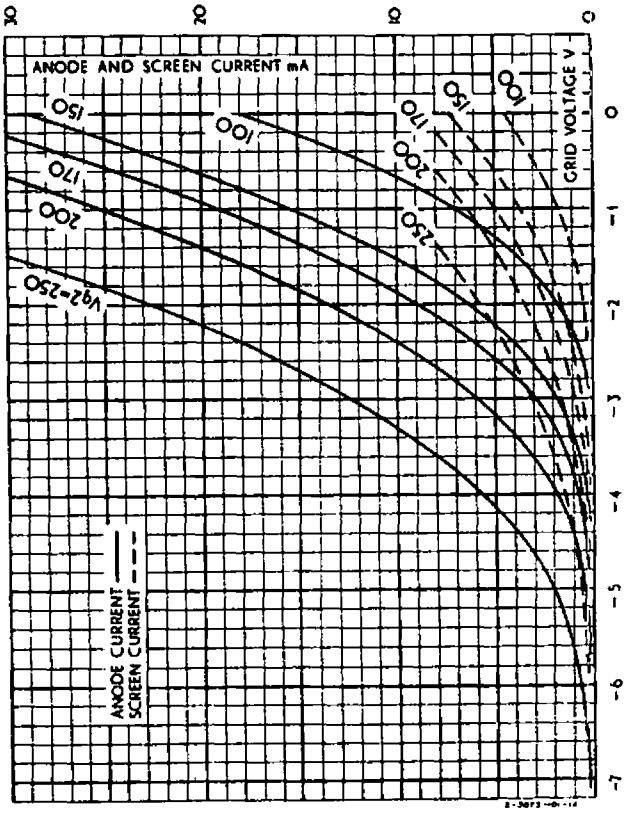


Viewed from Free End of Pins

CONNECTIONS 9AQ

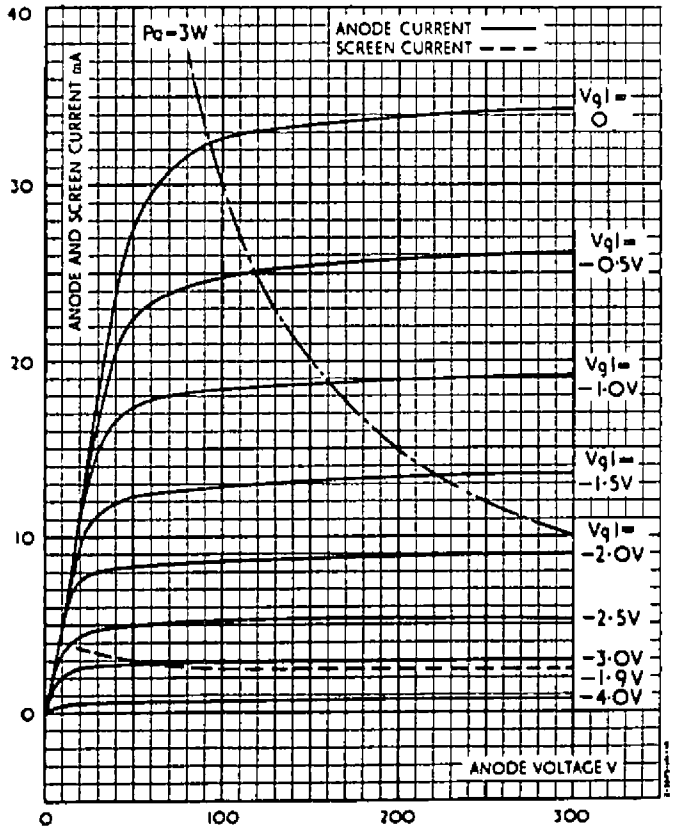
Pin 1	Cathode	k
Pin 2	Control Grid	g1
Pin 3	Cathode	k
Pin 4	Heater	h
Pin 5	Heater	h
Pin 6	Shield	s
Pin 7	Anode	a
Pin 8	Screen Grid	g2
Pin 9	Suppressor Grid	g3

AVERAGE CHARACTERISTIC CURVES: Ia, Ig2/Vg
Va=250V.

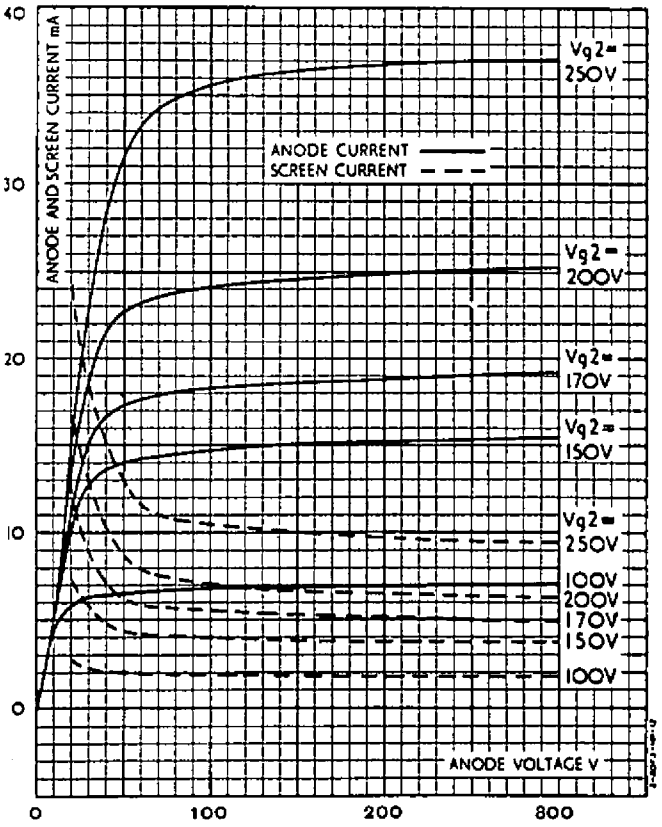


SIEMENS EDISON SWAN LIMITED

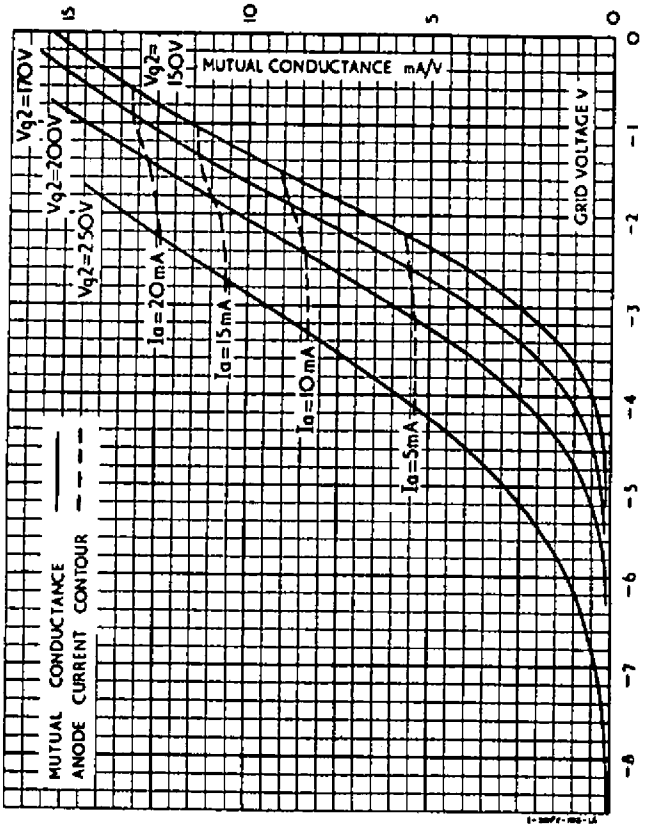
AVERAGE CHARACTERISTIC CURVES: Ia, Ig2/Va
Vg2 = 170V.



AVERAGE CHARACTERISTIC CURVES: Ia, Ig2/Va
Vg1 = −1·0V.



AVERAGE CHARACTERISTIC CURVES: gm/Vg
Va = 250V.



AVERAGE CHARACTERISTIC CURVES: Ia, Ig2, Ig1/Vg
Used as a limiter in a synchronising separator circuit.