

**S6F17****SPECIAL QUALITY PULSE AND R.F. TETRODE**

Indirectly heated—for parallel operation

**TENTATIVE****GENERAL**

The S6F17 is a Special Quality Beam Tetrode intended for pulse and R.F. amplification, and has characteristics similar to the 6F17. It is intended for use in AC or DC powered equipment having parallel connected heater chains. A special shock resistant construction is employed which gives increased reliability and life expectancy.

Quality tests are performed on electrical characteristics, vibration noise, base strain, glass strain, electrode resonance, vibration fatigue, shock resistance, heater cycling, stability and life.

**RATING**

Heater Voltage	(volts)	$V_h$	6.3
Heater Current	(amps)	$I_h$	0.3
Maximum Anode Voltage	(volts)	$V_a(\max)$	600
Maximum Screen Voltage	(volts)	$V_{g2}(\max)$	600
Maximum Anode Dissipation	(watts)	$P_a(\max)$	3.5
Maximum Screen Dissipation	(watts)	$P_{g2}(\max)$	0.7
Maximum Heater-Cathode Voltage	(volts)	$V_{h-k}(\max)$	100
Mutual Conductance	(mA/V)	$g_m$	8.3*
Maximum Bulb Temperature	(°C)		165‡
Maximum Shock (Impact)	(g)		500
Maximum Acceleration (Continuous)	(g)		2.5

\*  $V_a = V_{g2} = 250$  v ;  $I_a = 64$  mA ;  $V_{g1} = -6.25$  v. Pulse conditions.

‡ Reliability will be seriously impaired if the maximum bulb temperature is exceeded.

All maximum ratings are Absolute Values not Design Centres.

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## NOTE

The life expectancy may be reduced if conditions other than those used for life test are imposed on the valve and will be reduced appreciably if maximum ratings are exceeded. Life test values are:  $V_a=250$  v;  $V_{g2}=200$  v;  $V_{h-k}=100$  v;  $R_{g1}=500$  kilohms;  $R_k=1$  kilohm. Reliability and performance will be adversely affected if heater voltage ratings are exceeded, life and reliability being directly related to the degree with which the heater voltage is maintained at its centre rated value.

## INTER-ELECTRODE CAPACITANCES (pF)

Grid 1/Earth	$c_{in}$	6.2
Anode/Earth	$c_{out}$	5.2
Grid 1/Anode	$c_{a-g1}$	0.03

Capacitances measured with screen can but with holder capacity balanced out.

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

## DIMENSIONS

Maximum Overall Length	(mm)	54.5
Maximum Diameter	(mm)	19.0
Maximum Seated Height	(mm)	47.5
Approximate Nett Weight	(ozs)	$\frac{1}{4}$
Approximate Packed Weight	(ozs.)	$\frac{1}{2}$

MOUNTING POSITION—Unrestricted

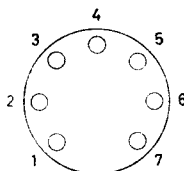
BULB—Clear

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BASE—B7G.



Viewed from free end of pins.

**CONNECTIONS**

Pin 1	Grid 1	g1
Pin 2	Cathode	k
Pin 3	Heater	h
Pin 4	Heater	h
Pin 5	Anode	a
Pin 6	Beam Plates	bp
Pin 7	Grid 2	g2