High Current 10-way Trochotron
Beam Switching Tube

VS10H
(VX.9210)

Cathode
Indirectly heated

Heater
Vh 6.3 V
Ih 0.55 V

Limit Ratings

Maximum heater to cathode voltage ± 150 V
Maximum spade to cathode voltage (V_s max.) + 145 V
Minimum spade to cathode voltage (V_s min.) + 80 V
Minimum target to cathode voltage (V_T min.) + 50 V
Maximum target to cathode voltage (V_T max.) + 300 V
Minimum switching-grid to cathode voltage
(V_sg min.)

V_s = 140 V  75 V
125 V  55 V
80 V  45 V

Minimum spade resistor (R_s min.)
V_s = 140 V
56 kΩ
125 V  68 kΩ
80 V  82 kΩ

Maximum spade resistor (R_s max.)
V_s = 140 V
150 kΩ
125 V  175 kΩ
80 V  270 kΩ

Minimum resolution time (for groups of pulses not
exceeding nine in number) 250 nS
Maximum switching speed (for regular spaced pulses) 2 Mc/S

Characteristics

Holding spade current 1.0 mA nom.
Target spade current V_s = 140 V 18.0 mA nom.
125 V  10.0 mA nom.
80 V  6.5 mA nom.

Switching grid current on switching
V_s = 140 V 2.0 mA nom.
125 V  1.0 mA nom.
80 V  0.2 mA nom.
Recommended Operating Conditions for
1 Mc/S Operation

\[ V_s = 125 \text{ V} \]
\[ R_s = 100 \text{ kΩ} \]

(Each spade must be connected to a separate load resolver with not more than \( \frac{1}{2} \)" (10 mm) of connecting lead).

\[ V_T = 125 \text{ V} \]
\[ R_T = 4.7 \text{ kΩ} \]

(Any number of target resistors may be taken to a common target resistor).

Minimum pulse—duration: 0.25 μS
Minimum pulse—amplitude: \(- (V_{SG} + 5) \text{ V}\)

For 2 Mc/S Operation

\[ V_s = 125 \text{ V} \]
\[ R_s = 82 \text{ kΩ} \]

(Each spade must be connected to a separate load resistor with not more than \( \frac{1}{2} \)" (10 mm) of connecting lead).

\[ V_T = 125 \text{ V} \]
\[ R_T = 4.7 \text{ kΩ} \]

(Any number of target resistors may be taken to a common target resistor).

Minimum pulse—duration: 0.25 μS
Minimum pulse—amplitude: \(- (V_{SG} + 5) \text{ V}\)
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Mechanical Data

Mounting position

Any: providing that the tube is kept at least 2" from any magnetic material or 4" from a similar tube, a strong magnet or a mu-metal screen.

Weight

220 g

Base

B26A

Sockets

B26A or B27A

Base Connections
(underside view)

Pin 1 Spade 0
2 Target 9
3 Target 8
4 Odd Switching grids
5 Target 7
6 Spade 7
7 Target 6
8 Target 5
9 Spade 5
10 Target 4
11 Do not connect
12 Target 3
13 Target 2
14 Spade 2
15 Target 1
16 Even Switching grids
17 Target 0
19 Spade 9
20 Spade 8
21 Heater
22 Spade 6
23 Spade 4
24 Spade 3
25 Heater
26 Spade 1
27 Cathode

881mm
3469" MAX.

81.5mm
3.211" MAX.

44mm
1.732" MAX. DIA.