TROCHOTRON, 10-way Beam Switching Tube

VS10G
(CV5290)

Cathode
Indirectly heated

Heater
Vh  6.3 V
Ih  0.5 A

Limit Ratings
Maximum heater to cathode voltage ±150 V
Maximum spade to cathode voltage (Vₛ max.) 125 V
Minimum spade to cathode voltage (Vₛ min.) 85 V
Minimum target to cathode voltage (Vₜ min.) 50 V
Maximum target to cathode voltage (Vₜ max.) 300 V
Minimum switching-grid to cathode voltage
(Vₛ₉₉ min.)

Vₛ = 125 V 65 V
Vₛ = 85 V 45 V

Minimum input duration 0.5 µS

Characteristics (Vₛ = 108 V, Rₛ = 100 kΩ)
Holdingode current 1.2 mA nom.
Target current 10.0 mA nom.

Recommended Operating Conditions (for counting up to 1 Mc/S)

Vₛ 108 V
Rₛ 100 kΩ ± 10%

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

Vₜ 108 V
Rₜ 4.7 kΩ

(Any number of target connections may be taken to a common target resistor).
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Recommended Operating Conditions (for counting up to 1 Mc/S) cont.

\[ V_{SG} = \frac{V_s}{2} \]

- \( V_{SG} \) pulse amplitude: \( 54 \text{ V} \)
- \( t \) pulse: \( 0.5 \text{ \mu S} \)
- \( R_{SG} \): \( 22 \text{ k\Omega} \)
- \( C \) input: \( 330 \text{ pF} \)

Alternatively d.c. coupling may be used as shown in circuit LK. 125

*Note:* The spade resistance is the total resistance, including resistors for beam formation etc.

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: 185 g
- Base: B26A

N.B. \( \Rightarrow \) Indicates a change from previous data sheets.
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Mechanical Data—cont.

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

44mm 1732' MAX. DIA

815mm 3'191'' MAX.

881mm 3'469'' MAX.
1 Mc/S Trochotron Decade Counter with GR10A Register Tube readout
TROCHOTRON, 10-way Beam Switching Tube

VS10G

VS10G Holding Spade and Target Characteristics