

# High Current 10-way Trochotron Beam Switching Tube

## VS10H (VX.9210)

<b>Cathode</b>	Indirectly heated	
<b>Heater</b>	Vh	6.3 V
	lh	0.55 V
<b>Limit Ratings</b>		
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 k $\Omega$
	125 V	68 k $\Omega$
	80 V	82 k $\Omega$
Maximum spade resistor ( $R_S$ max.)		
	$V_S = 140$ V	150 k $\Omega$
	125 V	175 k $\Omega$
	80 V	270 k $\Omega$
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.



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(VX.9210)

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Beam Switching Tube**

**Recommended Operating Conditions for  
1 Mc/S Operation**

$V_s$	125 V
$R_s$	100 k $\Omega$

(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 V
$R_T$	4.7 k $\Omega$

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

Minimum pulse—duration	0.25 $\mu$ S
Minimum pulse—amplitude	— ( $V_{SG} + 5$ ) V

**For 2 Mc/S Operation**

$V_s$	125 V
$R_s$	82 k $\Omega$

(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 V
$R_T$	4.7 k $\Omega$

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

Minimum pulse—duration	0.25 $\mu$ S
Minimum pulse—amplitude	— ( $V_{SG} + 5$ ) 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

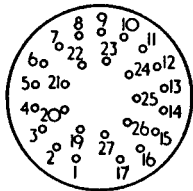
Base

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              |

