

Dieter's Nixie Tube Data Archive

This file is a part of Dieter's Nixie- and display tubes data archive

If you have more datasheets, articles, books, pictures or other information about Nixie tubes or other display devices please let me know.

Thank you!

Document in this file	ETL datasheet: GS10D tube
Display devices in this document	GS10D

Bi-directional 10-way Selector Tube

GS10D

Limit Ratings

Maximum counting rate:	
Continuous sine wave drive	20 kp/s
Rectangular pulse drive	10 kp/s
Maximum total anode current	900 μ A
Minimum total anode current	700 μ A
Minimum supply voltage, anode to cathode (normal room illumination)	440 V
Maximum potential between guides and cathodes	180 V
Maximum output pulse available with 47k cathode load resistor	35 V

Characteristics

Running voltage at 800 μ A	208 V approx.
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Recommended Operating Conditions

*Anode current	800 μ A	
**Guide bias	+50 \pm 5 V	
Cathode load resistors	47 k Ω max.	←
Forced resetting pulse	—140 V	
***Double pulse drive—amplitude	—120 V \pm 10 V	
Double pulse drive—duration	30 μ S \pm 20%	
Double pulse drive—pulse overlap at the 90% pulse level	10 \pm 5 μ S	←
****Integrated pulse drive—amplitude	—145 V \pm 15 V	
Integrated pulse drive—duration	33 μ S \pm 20%	←
Sine wave drive—amplitude	60—100 V r.m.s.	←

* The required anode current may be obtained from a 475 V supply via a 300 k Ω \pm 5% resistor.

Note—To reduce the effect of stray capacity to a minimum it is essential that the anode resistor be wired not more than $\frac{1}{4}$ " (5 mm) from the anode tag on the valve holder.

** This does not apply in the case of the sine wave drive. See circuit LK.100, Issue 2.

*** The pulses should have a rise time of less than 150 V/ μ S and a droop of less than 30 V. See circuit LK.102, Issue 2.

**** The pulse should have a rate of rise of less than 150 V/ μ S and a droop of less than 5 V. See circuit LK.101, Issue 2.

N.B. ← Indicates a change from previous data sheet.



GS10D

Bi-directional 10-way Selector Tube

Mechanical Data

Mounting position

Any.

For visual indication the tube is viewed through the dome of the bulb.

Alignment

Cathode 1 is aligned with pin No. 11 to an accuracy of $\pm 12^\circ$.

Weight

53 g (nominal)

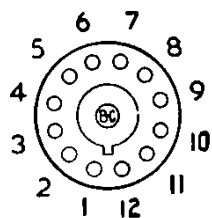
Base

Duodecal with bottom cap.

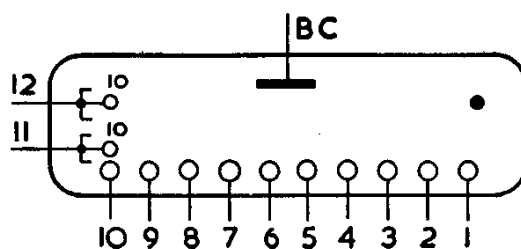
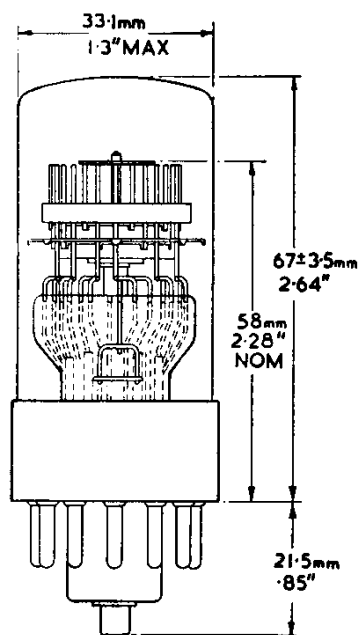
Escutcheon

N80977.

Base Connections
(underside view)

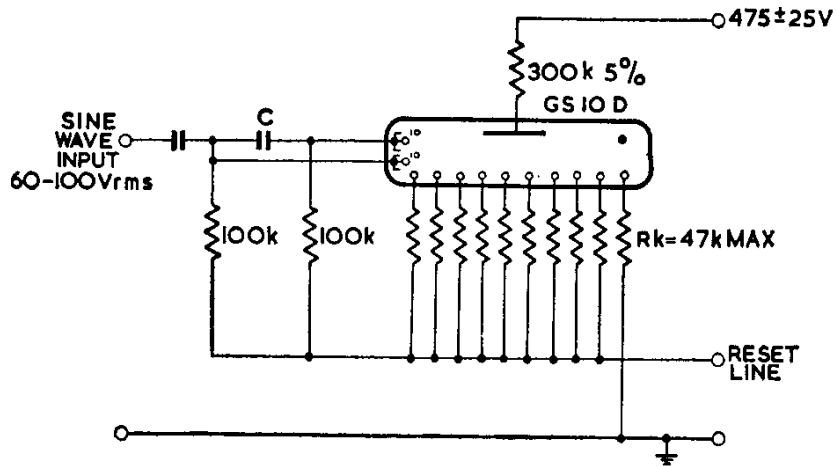


Pin 1	Cathode 0
2	" 9
3	" 8
4	" 7
5	" 6
6	" 5
7	" 4
8	" 3
9	" 2
10	" 1
11	2nd Guides
12	1st Guides
B.C.	Anode



Bi-directional 10-way Selector Tube

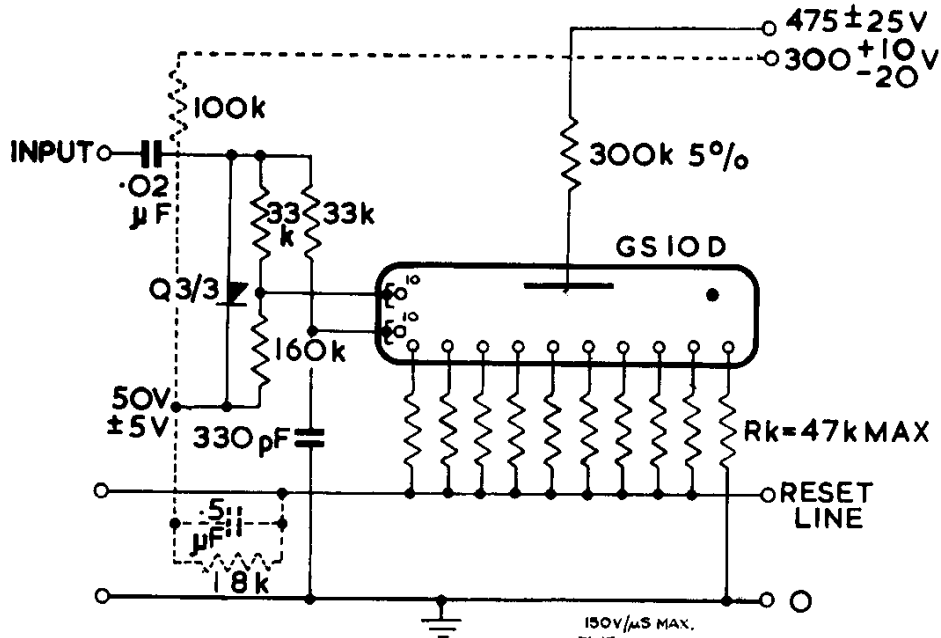
GS10D



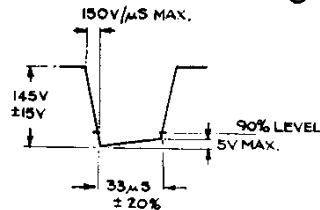
FREQUENCY	20 kc/s	15 kc/s	10 kc/s	5 kc/s	2 kc/s	1 kc/s	500 c/s	200 c/s	100 c/s	50 c/s
C	270 pF	330 pF	470 pF	680 pF	.002 μF	.005 μF	.01 μF	.02 μF	.05 μF	.1 μF

LK100
ISSUE 2

Continuous Sine-Wave Drive



INPUT PULSE
10kpps MAX.



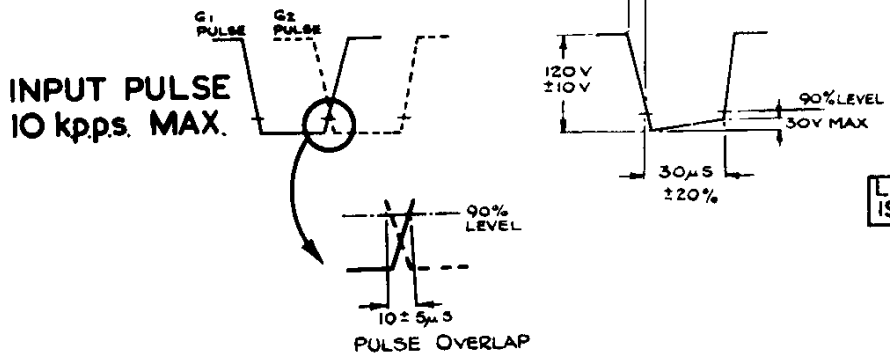
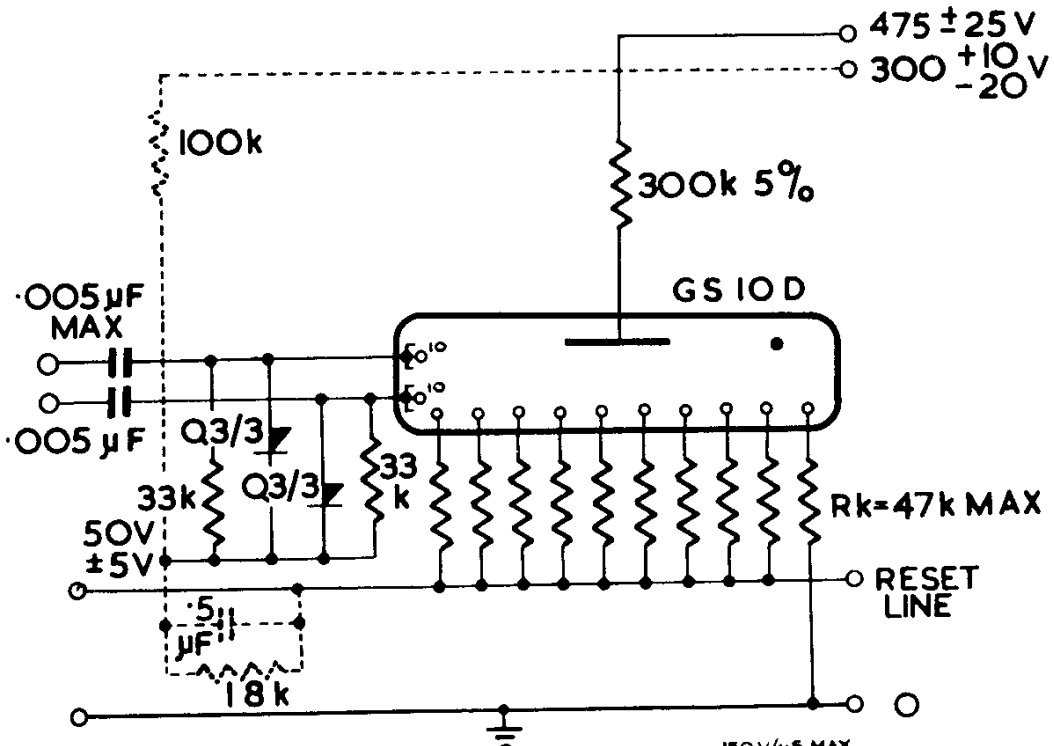
LK101
ISSUE 2

Integrated-Pulse Drive



GS10D

Bi-directional 10-way Selector Tube



Paired-Pulse Drive

