

# DISC SEAL TRIODE

# TD03-5

Application: R.F. amplifier

Frequency: 2.0Gc/s

Construction: Disc seal, natural cooling

This data should be read in conjunction with GENERAL OPERATIONAL RECOMMENDATIONS—TRANSMITTING VALVES included in this section of the handbook.

## HEATER

$V_{H}$	6.3	V
$I_{H}$	400	mA

## MOUNTING POSITION

Any

## CAPACITANCES

$C_{a \mu}$	1.0	pF
$C_{a-k}$	10	mpF
$C_{g-k}$	2.0	pF

## CHARACTERISTICS

$V_{n}$	250	V
$I_{u}$	10	mA
$i_{L}$	70	
$g_{m}$	6.5	mA/V

## OPERATING CONDITIONS

$V_{a}$	250	V
$V_{g}$	-2.0	V
$I_{a}$	10	mA
Noise factor		
at 1.0Gc/s with 15dB power gain	9.5	dB
at 1.5Gc/s with 13.5dB power gain	12	dB
at 2.0Gc/s with 11.5dB power gain	14.5	dB

## LIMITING VALUES

$V_{a}$ max.	350	V
$I_{k}$ max.	25	mA
$p_{a}$ max.	5.0	W
$T_{\text{anode seal}}$ max.	140	°C

In order to limit the anode seal temperature and also to limit the rate of change of temperature it is necessary that the mass of metal in close thermal contact with the anode disc shall not be less than 45g (1½ oz) of brass or its thermal equivalent.

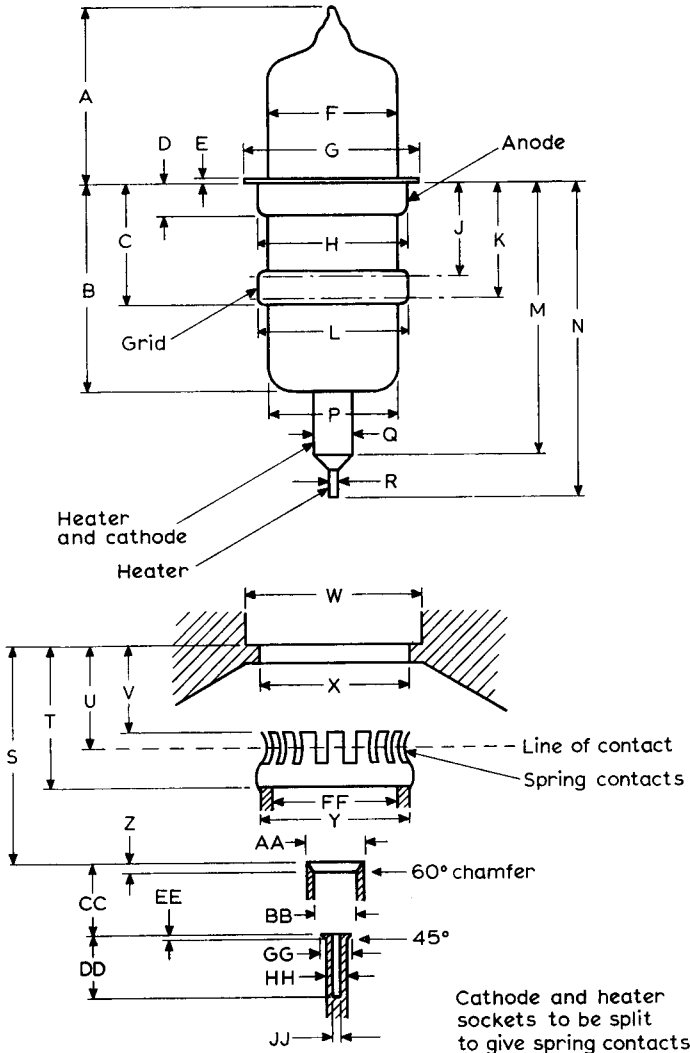
### DIMENSIONS

	<i>Inches</i>	<i>Millimetres</i>	
A	0.876	22.25	max.
B	1.053	26.75	max.
C	0.621 ± 0.039	15.75 ± 1.00	
D	0.165 ± 0.004	4.2 ± 0.1	
E	0.012	0.3	
F	*	*	
G	0.876 ± 0.004	22.25 ± 0.10	
H	0.748 ± 0.006	19.00 ± 0.15	
J	0.484	12.3	max.
K	0.539	13.7	min.
L	0.748 <sup>+0.000</sup> <sub>-0.010</sub>	19.00 <sup>+0.00</sup> <sub>-0.25</sub>	
M	1.366 ± 0.039	34.7 ± 1.0	
N	1.575 ± 0.020	40.0 ± 0.5	
P	†	†	
Q	0.187 ± 0.004	4.75 ± 0.10	
R	0.044 ± 0.001	1.120 ± 0.025	
S	1.073 ± 0.010	27.25 ± 0.25	
T	0.709	18	min.
U	0.512	13	
V	0.433 ± 0.010	11.00 ± 0.25	
W	0.898 ± 0.005	22.80 ± 0.12	
X	0.776 ± 0.005	19.70 ± 0.12	
Y	0.748	19	
Z	0.039 <sup>+0.000</sup> <sub>-0.006</sub>	1.00 <sup>+0.00</sup> <sub>-0.15</sub>	
AA	0.248	6.3	
BB	0.187	4.76	
CC	0.364 ± 0.010	9.25 ± 0.25	
DD	0.315	8.0	min.
EE	0.020 <sup>+0.000</sup> <sub>-0.003</sub>	0.500 <sup>+0.000</sup> <sub>-0.075</sub>	
FF	0.677	17.2	max.
GG	0.125	3.17	
HH	0.094	2.38	
JJ	0.046	1.18 (No. 56 drill)	

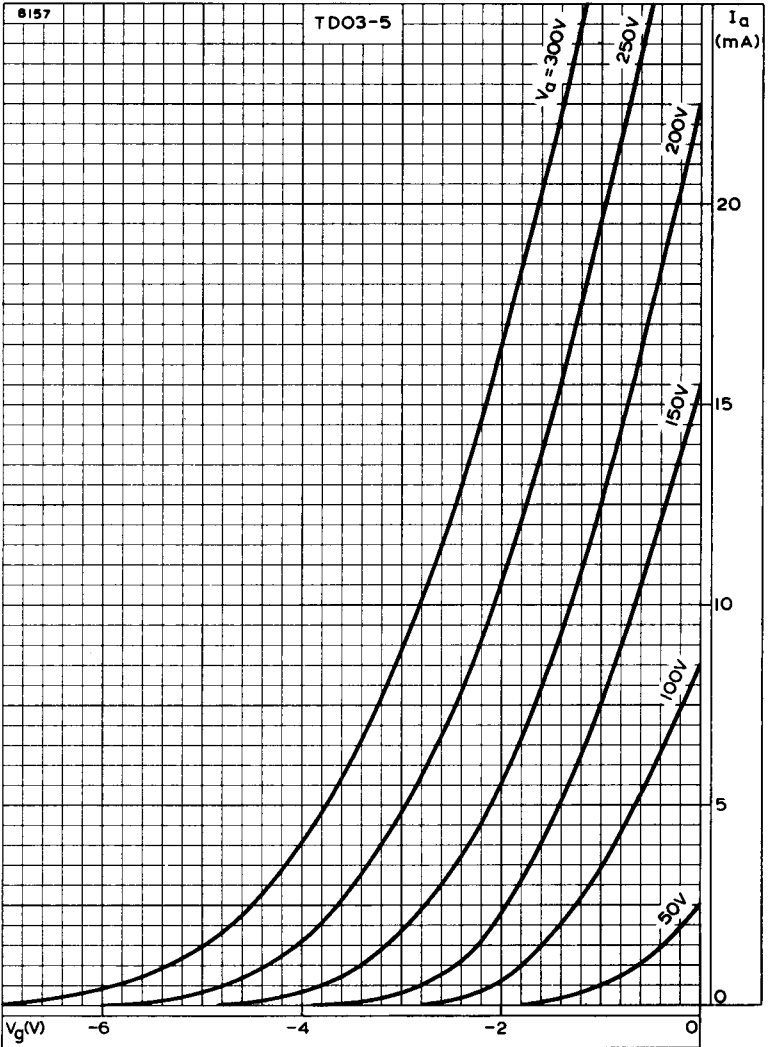
\*To fit inside a cylinder of 17.5mm (0.689in) diameter co-axial with the anode disc. This diameter may be continued to maximum length.

†Grid disc to fit co-axially inside a cylinder of 17.2mm (0.677in) diameter.

Note—The eccentricity of the grid, cathode and heater contacts shall not exceed 0.375mm (0.015in).



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ANODE CURRENT PLOTTED AGAINST GRID VOLTAGE WITH ANODE VOLTAGE AS PARAMETER

