S-BAND
PASSIVE PROTECTION PLUG-IN CELL
WIDEBAND

TRP8
ISSUE 2

The TRP8 is a combination of three primed passive protection tubes for use in receivers where crystal protection is necessary over a large part of S-band.

RATINGS

Max. incident peak r.f. power	15	W
*Min. d.c. negative primer supply voltage	950	V
†Max. primer current to each tube	65	μA
†Min. primer current to each tube	45	μA

*Negative with respect to cell body and with a peak to peak ripple voltage not exceeding 1%.

†The primer current should be limited by series resistors of which at least 2MΩ must be connected immediately to each primer terminal in order to reduce the possibility of relaxation oscillation in the primer circuit.

CHARACTERISTICS

The frequency range 2·5 to 4·1kMc/s can be covered with one mounting using the mount shown in fig. 1. For use over a more limited band the centre frequency may be varied by changing the dimensions of the inductive matching elements used in the mounting.

***Low Power** (Fig. 3)

Max. total insertion loss:

At 2·8 to 3·8kMc/s:	1·3dB
At 2·5 to 4·1kMc/s:	4·3dB

High Power (Figs. 4, 5 and 6)

†Power limitation at 3·6kMc/s (max):	300mW
‡Recovery time to 6dB down (max):	70μs

Primer

Maximum breakdown time:	5s
Running voltage (at 60μA):	240V

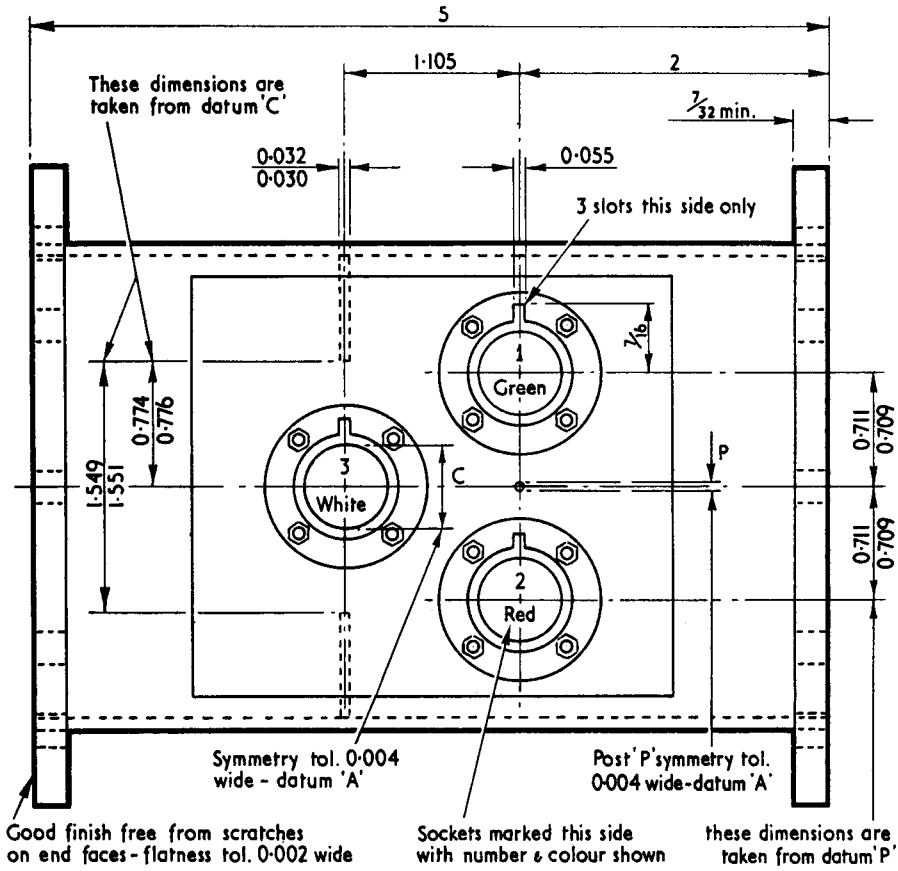
*The low power characteristics for individual tubes are as follows:

Loaded Q:	1	—
Max. insertion loss:	0·15	dB
Min. VSWR at resonance:	0·91	—

†The tube in the gap remote from the generator is dominant in determining the leakage of the combination.

‡The tubes in the gaps nearest the generator are dominant in determining the recovery time of the combination.

(395)



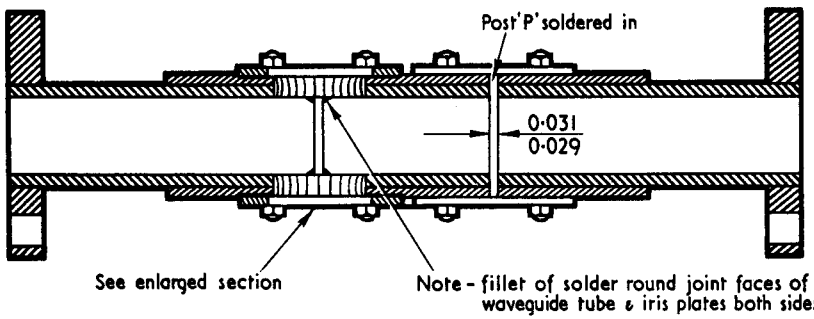
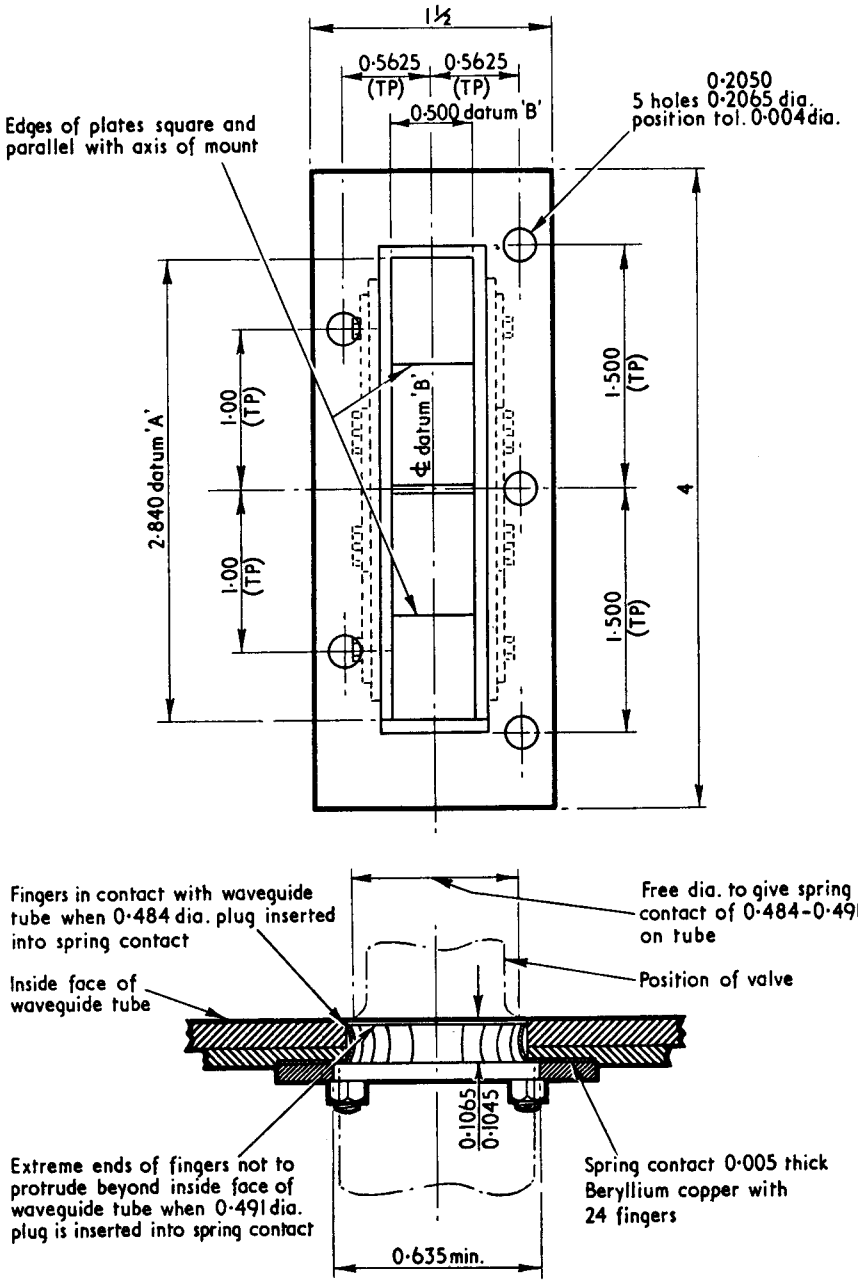


Fig. 1. (Above and opposite).

Test Mount.

Dimensions are in inches.

For explanation of dimensions, notes, symbols, etc.; please see BS308/1953.



Enlarged section showing spring contact.

Dimensions are in inches.

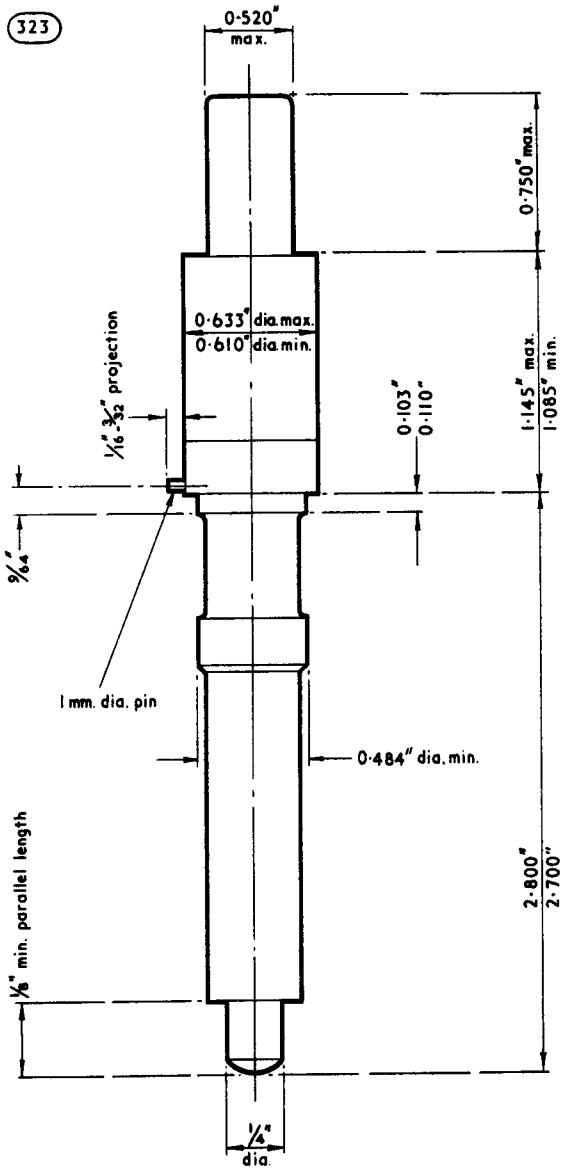


Fig. 2. Outline drawing.

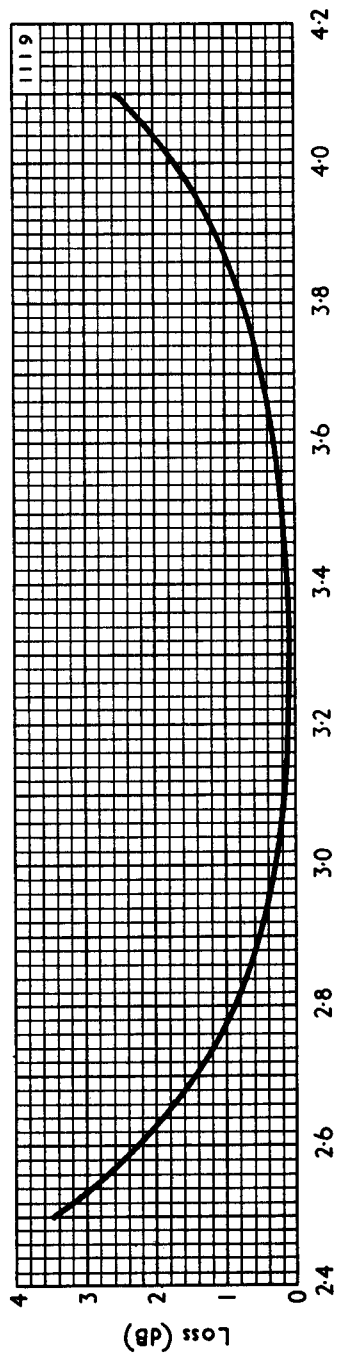


Fig. 3.

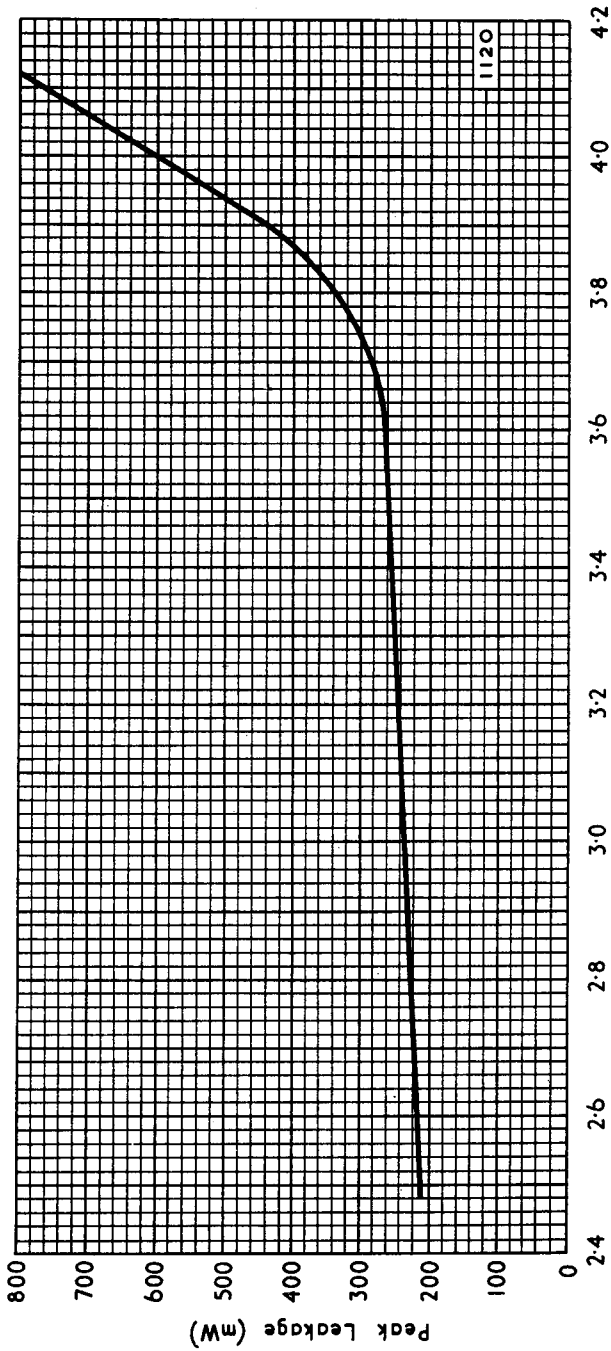

1120
Peak Leakage (mW)
800
700
600
500
400
300
200
100
0
2·4
2·6
2·8
3·0
3·2
3·4
3·6
3·8
4·0
4·2
Frequency (kMc/s)

Fig. 4.

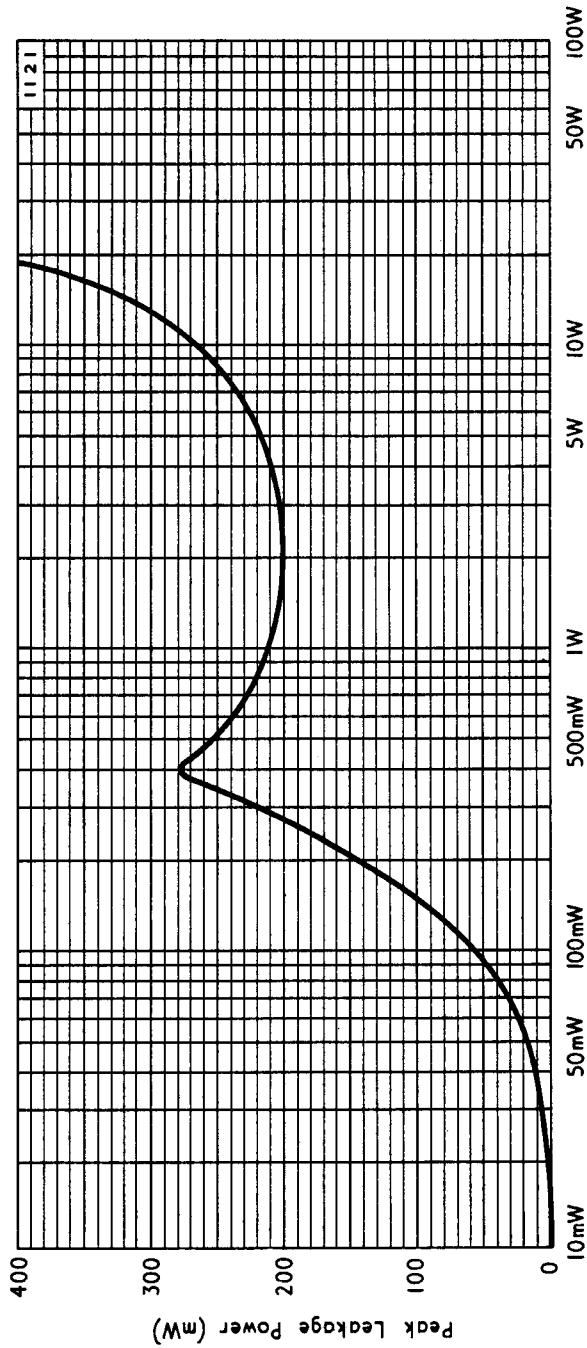

1121
400
300
200
100
0
Peak Leakage Power (mW)
10mW
50mW
100mW
500mW
1W
5W
10W
50W
100W
Peak Incident Power

Fig. 5.

TRP8

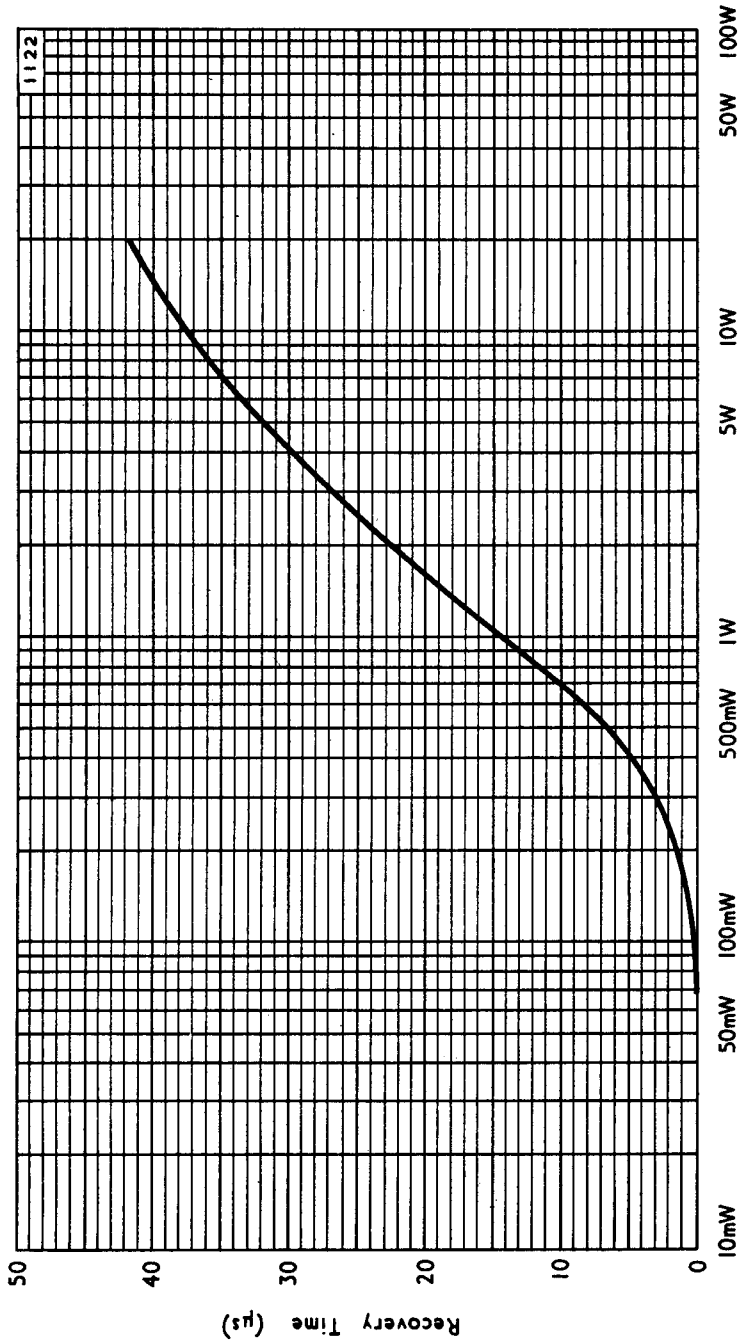


Fig. 6.

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