



X-BAND TR TUBE

Service Type CV6132

The data should be read in conjunction with the Duplexer Device Preamble.

DESCRIPTION

Broad-band single primer TR tube.

CHARACTERISTICS

Frequency range	8500 to 9100	MHz
V.S.W.R. (see note 1)	1.2:1	max
Maximum leakage:		
spike energy (see note 2)	20	nJ/pulse
total power (see note 3)	100	mW
low power	250	mW
Recovery period to -3db (see note 3)	2.0	μs max
Insertion loss (see note 4)	0.8	db max
Arc loss (see note 3)	0.8	db max
Position of short circuit		
(see notes 3 and 5)	0.021 ± 0.007 inch (0.53 ± 0.18mm)	

MAXIMUM AND MINIMUM RATINGS

	Min	Max	
Transmitter power (peak) (see note 6)	1.0	200	kW
Primer supply voltage (negative)			
(see note 7)	900	1100	V
Primer current	70	150	μA
Waveguide pressure	—	300	kN/m ²
	—	44	lb/in ²
Ambient temperature (non-operating)	-40	+100	°C

GENERAL

Overall dimensions	1.555 x 1.625 x 2.187 inches nom 39.50 x 41.28 x 55.55mm nom
Waveguide size	no. 16 (0.900 x 0.400 inch internal)
Coupler	UG-39/U
Finish	flange faces tin or silver plated
Mounting position	any
Net weight	4 ounces (110g) approx

NOTES

1. Measured at a power level below 10mW over the frequency range.
2. Measured at 40kW peak power, 0.1 μ s pulse length and 3000p.p.s.
3. Measured at 40kW peak power, 1.0 μ s pulse length and 1000p.p.s.
4. Measured at a power level below 10mW at the centre of the frequency range.
5. Distance of the effective r.f. short circuit behind front flange.
6. Operation at power levels above 50kW results in reduced life and it is recommended that in such cases the tube be preceded by a pre-TR tube.
7. The primer supply voltage must be applied at least 5 seconds before the tube is required to operate. The primer current must be limited by a series resistance of 5.5M Ω , of which at least 0.5M Ω must be adjacent to the primer terminal.

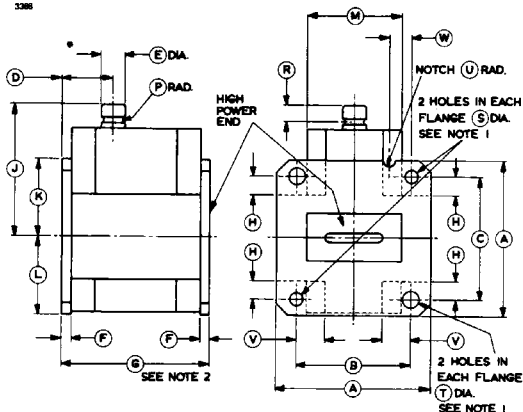
Outline Dimensions (All dimensions without limits are nominal)

Ref	Inches	Millimetres
A	1.625	41.28
B	1.220 $\pm$ 0.004	30.988 $\pm$ 0.102
C	1.280 $\pm$ 0.004	32.512 $\pm$ 0.102
D	0.531	13.49
E	0.250	6.35
F	0.109 $\pm$ 0.016	2.77 $\pm$ 0.41
G	1.555 $\pm$ 0.002	39.497 $\pm$ 0.051
H	0.187 min	4.75 min
J	1.375 $\pm$ 0.031	34.93 $\pm$ 0.79
K	1.125 max	28.58 max
L	0.828 max	21.03 max
M	1.000 max	25.40 max
P	0.030	0.76
R	0.170	4.32
S*	0.150 $\pm$ 0.004	3.8 $\pm$ 0.1
T*	0.169 $\pm$ 0.004	4.3 $\pm$ 0.1
U	0.062 $\pm$ 0.031	1.57 $\pm$ 0.79
V	0.219 min	5.56 min
W	0.235 $\pm$ 0.010	5.97 $\pm$ 0.52

Millimetre dimensions have been derived from inches except where indicated thus *.

OUTLINE

3388



Outline Notes

1. The corresponding holes in both flanges will be coaxial. Two of the diametrically opposite holes are suitable for locating on dowel pegs, while the remaining two are used for clamping. The notch at the top of the flange may be used to locate the input (high power) end against a peg and prevent accidental insertion of the tube the wrong way round.
2. The two flanges are flat and parallel within 0.002 inch (0.051mm).