



# BS462

## X-BAND TR TUBE

Service Type CV3840

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

### DESCRIPTION

Tunable high Q TR tube, intended for marine radar.

### CHARACTERISTICS

Frequency range . . . . .	9000 to 9300	MHz
V.S.W.R. at resonance (see note 1) . . . . .	1.4:1	max
Maximum leakage:		
spike energy (see note 2) . . . . .	8.0	nJ/pulse
total power (see note 3) . . . . .	30	mW
low power . . . . .	250	mW
Recovery period to -3db (see note 3) . . . . .	6.0	μs max
Insertion loss at resonance (see note 1) . . . . .	1.0	db max

### MAXIMUM AND MINIMUM RATINGS

	Min	Max	
Transmitter power (peak) . . . . .	-	75	kW
Primer supply voltage (negative) (see note 4) . . . . .	700	1500	V
Primer current . . . . .	100	200	μA
Ambient temperature (non-operating) . . . . .	-40	+100	°C

### GENERAL

Overall dimensions . . . . .	1.000 x 1.625 x 3.813 inches nom 25.40 x 41.28 x 96.85mm nom
Waveguide size . . . . .	no. 16 (0.900 x 0.400 inch internal)
Coupler . . . . .	UG-39/U
Finish . . . . .	brass flanges
Mounting position . . . . .	any
Net weight . . . . .	6 ounces (170g) approx

## NOTES

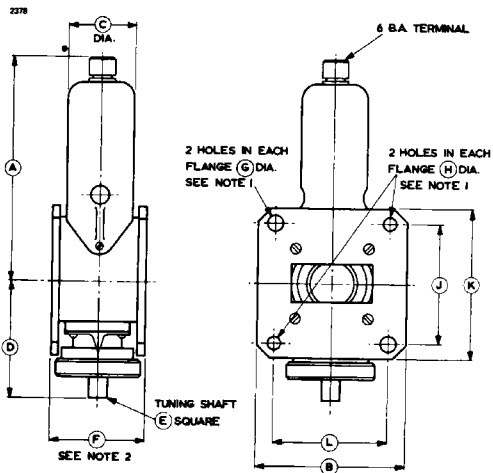
1. Measured at a power level below 10mW.
2. Measured at 40kW peak power, 0.1 $\mu$ s pulse length and 3000p.p.s.
3. Measured at 40kW peak power, 1.0 $\mu$ s pulse length and 1000p.p.s.
4. The primer supply voltage must be applied at least 5 seconds before the tube is required to operate. The primer current must be limited by a series resistance of 5.5M $\Omega$ , of which at least 0.5M $\Omega$  must be adjacent to the primer terminal.

## Outline Dimensions (All dimensions without limits are nominal)

Ref	Inches	Millimetres
A	2.375 max	60.33 max
B	1.625	41.28
C	0.722 max	18.34 max
D	1.437 max	36.50 max
E	0.187	4.75
F	1.000 $\pm$ 0.005	25.40 $\pm$ 0.13
G	0.170 $\pm$ 0.002	4.318 $\pm$ 0.051
H	0.150 $\pm$ 0.002	3.810 $\pm$ 0.051
J	1.280 $\pm$ 0.003	32.512 $\pm$ 0.076
K	1.625	41.28
L	1.220 $\pm$ 0.003	30.988 $\pm$ 0.076

Millimetre dimensions have been derived from inches.

## OUTLINE



### 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.
2. The two flanges are flat and parallel within 0.010 inch (0.25mm).