

**X-BAND  
TB TUBE****Service Type CV460**

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

**DESCRIPTION**

X-Band TB tube.

**CHARACTERISTICS**

Resonant frequency . . . . .	9410	MHz
Loaded Q . . . . .	6.0	max
Equivalent susceptance . . . . .	$\pm 0.06$	max
Equivalent conductance . . . . .	0.045	max
Firing time (see notes 1 and 2) . . . . .	10	s max
V.S.W.R. (see note 3) . . . . .	1.1:1	max
Recovery loss at $2\mu\text{s}$ (see note 4) . . . . .	2.0	db max
Arc loss (see note 1) . . . . .	0.8	db max

**MAXIMUM AND MINIMUM RATINGS**

	<b>Min</b>	<b>Max</b>	
Transmitter power (peak) (see note 5) . . . . .	4.0	50	kW
Waveguide pressure . . . . .	—	300	kN/m <sup>2</sup>
		44	lb/in <sup>2</sup>
Ambient temperature (non-operating) . . . . .	-40	+100	°C

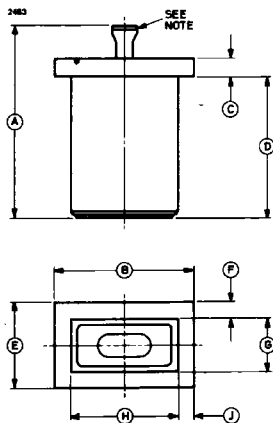
**GENERAL**

Overall dimensions . . . . .	1.813 x 1.303 x 0.803 inches max
	46.05 x 33.10 x 20.40mm max
Finish . . . . .	tin or silver plated
Mounting position . . . . .	any

**NOTES**

1. Measured at 4.0kW peak power,  $1.0\mu\text{s}$  pulse width and 1000p.p.s.
2. This test is performed at least 24 hours after any previous discharge.
3. Measured at 40kW peak power,  $1.0\mu\text{s}$  pulse length and 1000p.p.s.
4. Measured at 12 to 15kW peak power (derived from a higher power source through an attenuator of at least 6db),  $1.0\mu\text{s}$  pulse length and 1000p.p.s.
5. The tube can be used at higher powers but a somewhat reduced life may result.

## OUTLINE



Ref	Inches	Millimetres	Ref	Inches	Millimetres
A	1.813 max	46.05 max	F	0.142 min	3.61 min
B	1.303 + 0.000 - 0.006	33.10 + 0.00 - 0.15	G	0.510 + 0.000 - 0.020	12.95 + 0.00 - 0.51
C	0.133 + 0.000 - 0.016	3.38 + 0.00 - 0.41	H	1.010 + 0.000 - 0.020	25.65 + 0.00 - 0.51
D	1.299 ± 0.005	32.99 ± 0.13	J	0.142 min	3.61 min
E	0.803 + 0.000 - 0.006	20.40 + 0.00 - 0.15			

Millimetre dimensions have been derived from inches.

**Note** The seal-off will pass through a hole 0.375 inch (9.53mm) diameter, centred on the centre of the flange.