BS48

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	±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 2μs (see note 4)	2.0	db max
Arc loss (see note 1)	0.8	db max

MAXIMUM AND MINIMUM RATINGS

	Min	Max	
Transmitter power (peak) (see note 5)	4.0	50	kW
Waveguide pressure	–	300	kN/m^2
	–	44	lb/in^2
Ambient temperature (non-operating)	−40	+100	°C

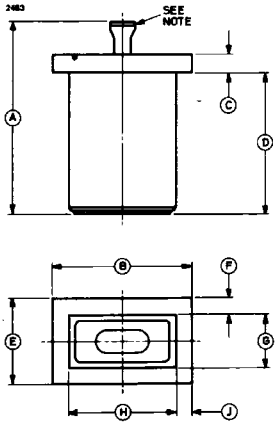
GENERAL

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, 1.0μs 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, 1.0μs 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), 1.0μs 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.