BS426

S-BAND TR TUBE

Service Type CV9443

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

DESCRIPTION

Broad-band single primer TR tube.

CHARACTERISTICS

Frequency range	3600 to 3780	MHz
V.S.W.R. (see note 1)	1.33:1	max
Maximum leakage:		
spike energy (see note 2)	25	nJ/pulse
total power (see note 2)	100	mW
low power	500	mW
Recovery period to −3db (see note 2)	25	μs max
Insertion loss (see note 3)	1.0	db max
Arc loss (see note 2)	0.8	db max
Position of short circuit (see notes 2 and 4)	0.062 inch (1.6mm) nom	

MAXIMUM AND MINIMUM RATINGS

	Min	Max	
Transmitter power (peak)	–	1250	kW
Primer supply voltage (negative) (see note 5)	900	1100	V
Primer current	70	150	μA
Waveguide pressure	–	300	kN/m²
	–	44	lb/in²
Ambient temperature (non-operating)	−40	+100	°C

GENERAL

Overall dimensions	3.600 x 4.760 x 3.630 inches nom 91.44 x 120.9 x 92.20mm nom
Waveguide size	no. 10 (2.840 x 1.340 inches internal)
Coupler	NATO S.N. 5985-99-083-0058
Finish	flange faces tin or silver plated
Mounting position	any
Net weight	4¼ pounds (1.9kg) approx

NOTES

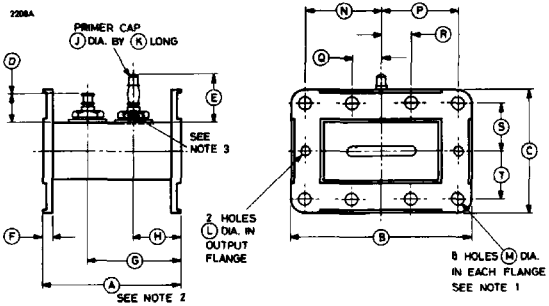
1. Measured at a power level below 10mW over the frequency range on a matched T junction.
2. Measured at 1.0MW peak power, 1.0μs pulse length and 500p.p.s.
3. Measured at a power level below 10mW at the centre of the frequency range.
4. Distance of the effective r.f. short circuit behind front flange.
5. 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 5.5MΩ, of which at least 0.5MΩ must be adjacent to the primer terminal.

Outline Dimensions (All dimensions without limits are nominal)

Ref	Inches	Millimetres	Ref	Inches	Millimetres
A	3.600	91.44	L	$0.250^{+0.002}_{-0.000}$	$6.350^{+0.051}_{-0.000}$
B	4.760 ± 0.010	120.9 ± 0.25			
C	3.260 ± 0.010	82.80 ± 0.25	M	0.260 ± 0.004	6.6 ± 0.1
D	0.875 max	22.23 max	N	2.031	51.59
E	1.250 ± 0.125	31.75 ± 3.18	P	2.031	51.59
F	0.250 min	6.35 min	Q	0.750	19.05
G	2.375 ± 0.062	60.33 ± 1.57	R	0.750	19.05
H	1.250 ± 0.062	31.75 ± 1.57	S	1.281	32.54
J	0.250	6.35	T	1.281	32.54
K	0.250	6.35			

Millimetre dimensions have been derived from inches except dimension M.

OUTLINE



Outline Notes

1. The corresponding holes of both flanges are in alignment within 0.020 inch (0.51mm).
2. The two flange faces are flat and parallel within 0.005 inch (0.13mm). The flanges mate with coupler NATO S.N. 5985-99-083-0058.
3. Hole each side, 3.8mm diameter, to accept primer cap spring.