

Specification

DESCRIPTION

Solid-state high power limiter with integral filter, for protection of S band radars against magnetron-generated spurious signals. A bias terminal is provided for S.T.C. (Sensitivity Time Control)

CHARACTERISTICS (at 20°C ambient)

Frequency	3.02 - 3.08	GHz.
Return loss	18	dB min.
Insertion loss	1	dB max.
Leakage (see note 1)	100	mW max.
Recovery to -3 dB (see note 2)	1.3	µs max.
S.T.C. attenuation (see note 3)	30	dB min.
Out of band attenuation (see note 4):		
at 4.5 GHz	50	dB min.
at 6.1 GHz	40	dB min.
Position of short circuit	see note 4 and 5	

MAXIMUM AND MINIMUM RATINGS

	MIN	MAX	
Transmitter power			
peak		30	KW
mean		30	W
Pulse duration		2	µs
Duty ratio		0.001	
S.T.C. bias (see note 6)		±200	mA
Ambient temperature			
Operating	-40	+90	°C
Storage	-50	+90	°C

GENERAL

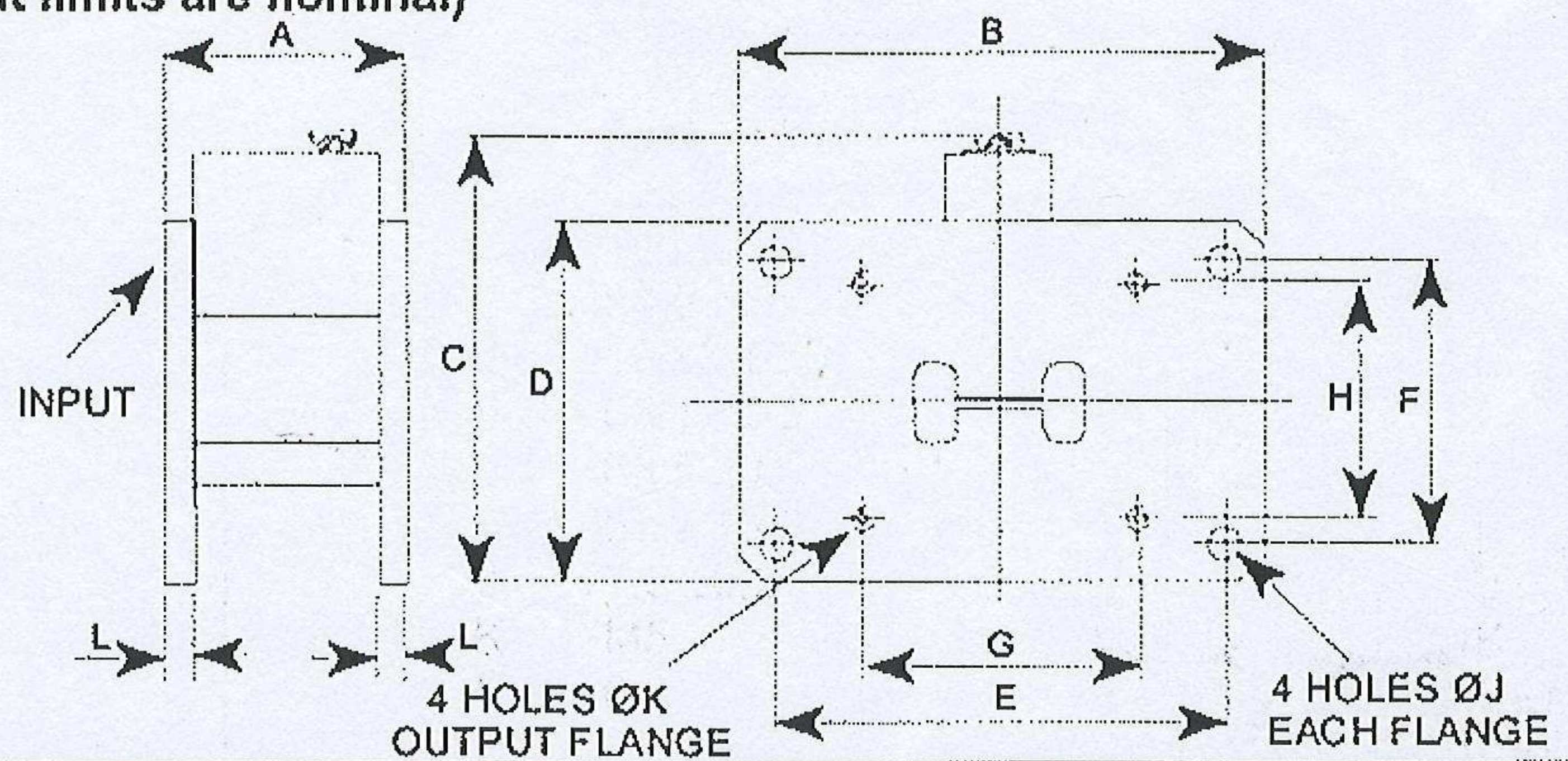
Overall dimensions	122 x 105 55 mm nom
Waveguide	WG10 (WR284)
Connectors:	
Waveguide	see outline
S.T.C. bias	solder tags
Finish	gold Alocrom
Mounting position	any
Net weight	1 Kg approx

NOTES

1. Measured at 3.05 GHz, 30 KW peak power, 1.0µS pulse and duty cycle 0.001.
2. Measured at 3.05 GHz, 10 KW peak power, 1.0µS pulse and duty cycle 0.001.
3. Measured with bias current +5.0 mA.
4. Design test only, Measured with diodes forward biased.
5. Typical short circuit position is 10 mm in front of the input flange.
6. The STC terminal has a BAT85 Schottky barrier diode to provide a return path for the limiter diode. Both diodes have a nominal impedance of 5 Ω at 200 mA bias. Positive current provides attenuation.

OUTLINE (All dimensions without limits are nominal)

Ref	Millimeters
A	55.0 ±0.5
B	122.0 max
C	100.0 max
D	84.0 max
E	103.2 ±0.3
F	65.1 ±0.3
G	63.5 ±0.3
H	57.2 ±0.3
J	7.3 ±0.2
K	M5
L	6.0



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