



New Japan Radio Co., Ltd.

Technical Information

Rev.5

# M1623

## S-Band Magnetron

M1623 is designed for the magnetron of S-band radar system. The frequency range is fixed <3040~3060MHz> and the peak output power is 30kW.

### MAXIMUM RATINGS

	Min	Max	Unit
Peak anode current .....	6.0	12	A
Peak anode power input .....	-	100	kW
Duty cycle .....	-	0.001	-
Pulse duration .....	0.07	1.0	$\mu$ s
Rate of rise of voltage pulse .....	-	130	kV/ $\mu$ s
Anode temperature .....	-	120	$^{\circ}$ C
V.S.W.R at the output coupler .....	-	1.5:1	-

### ELECTRICAL

	Min	Typical	Max	Unit
Heater voltage (Note 1) .....	5.7	6.3	6.9	V
Heater current .....	1.1	1.3	1.4	A
Preheat time .....	180	-	-	S
Peak anode voltage (Note 2) .....	7.2	8.0	8.5	kV
Peak output power (Note 2) .....	25	30	-	kW
Frequency (Note 2) .....	3040	3043	3060	MHz

Note 1: With no anode input power. For average pulse input powers greater than 25 watts, the heater voltage must be reduced within 3 seconds after the application of h.t. according to the following schedule:

Mean input power (W)	Heater Voltage(V)
Less than 25	6.3
25 to 62	5.3
62 to 100	4.5

Mean input power = Anode current  $\times$  Anode voltage  $\times$  Duty cycle (W)

Note 2: Measured at peak anode current 8.0A



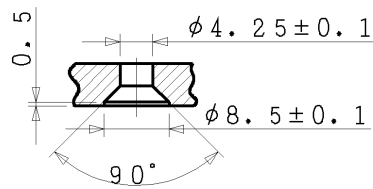
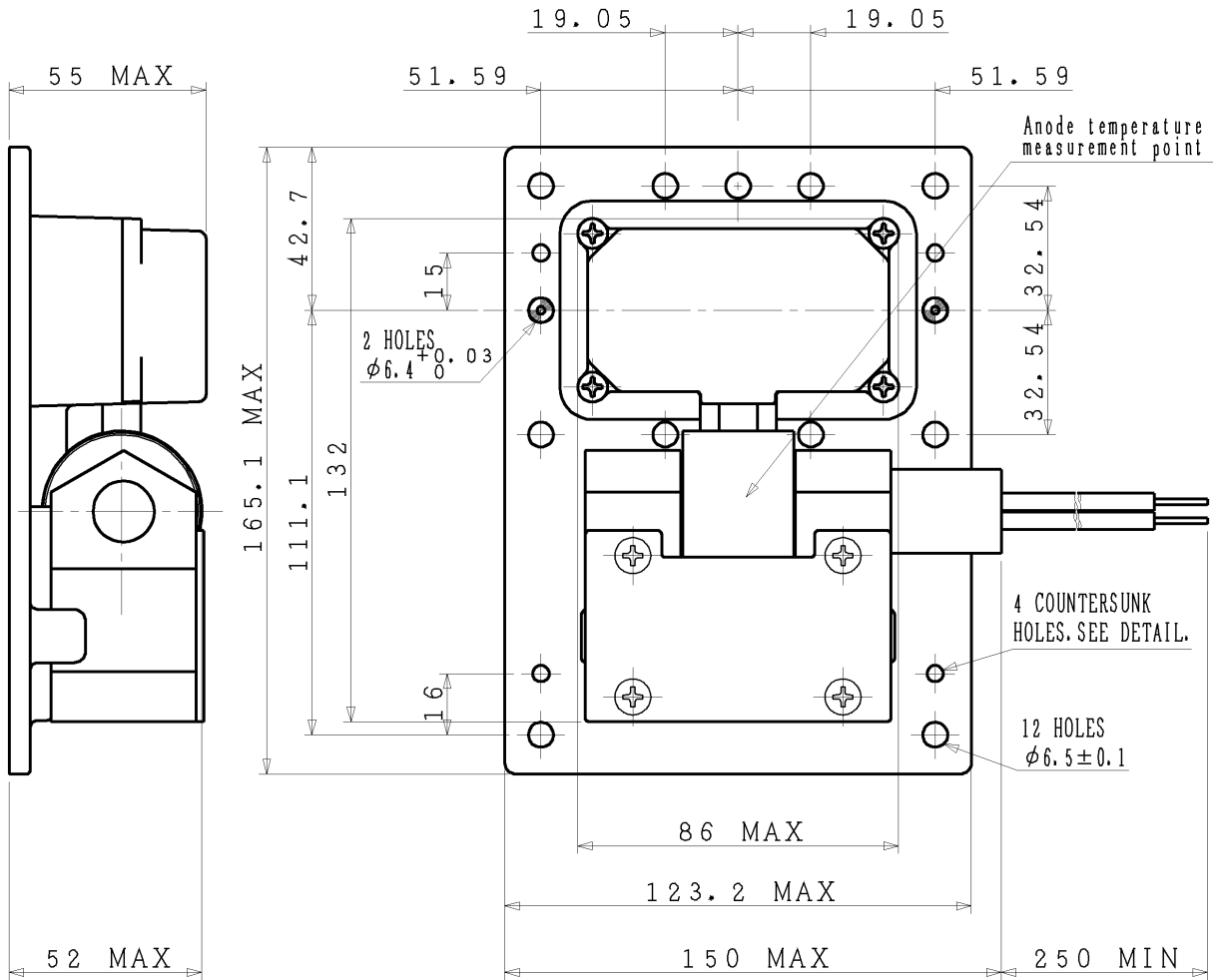
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Outline M1623

(unit:mm)



Detail of Countersunk Holes