Date	Oct. 28, 2022

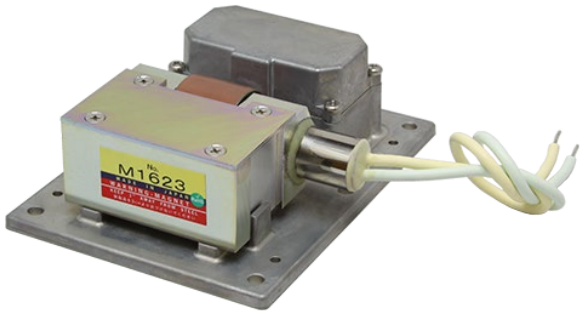
Released

S-band Magnetron

Model No. M1623

■ GENERAL DESCRIPTION

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.



■ ELECTRICAL CHARACTERISTICS

PARAMETERS		MINIMUM	TYPICAL	MAXIMUM	UNITS
Heater voltage	(note 1)	5.7	6.3	6.9	V
Heater current		1.1	1.3	1.4	
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

■ ABSOLUTE MAXIMUM RATINGS

These ratings cannot necessarily be used simultaneously and no individual ratings should be exceeded.

PARAMETERS	MINIMUM	MAXIMUM	UNITS
Peak anode current	6.0	12.0	A
Peak anode power input	-	100	kW
Duty cycle	-	0.001	-
Pulse duration	0.07	1.0	μs
Rate of rise of voltage pulse	-	130	kV/μs
Anode temperature	-	120	℃
VSWR at the output coupler	-	1.5 : 1	-

Notes

1. Measured with heater voltage of 6.3V and no anode input power, the heater current limits are 1.1A minimum, 1.4A maximum.
   For average pulse input powers greater than 25 watts, the heater voltage must be reduced within 3 seconds after the application of high voltage according to the following schedule:

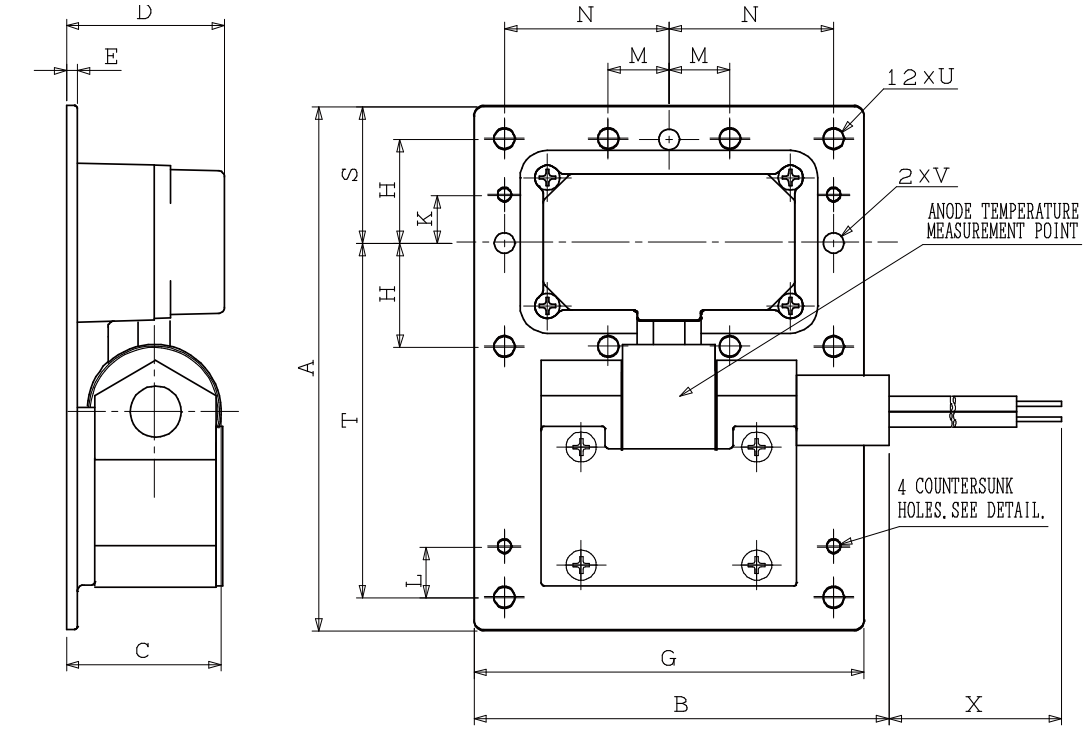
＊Above Specifications are subject to change without notice.

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 (Pi) = Anode current ×Anode voltage ×Duty cycle (W)

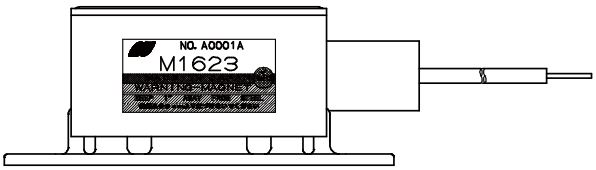
2. Measured at peak anode current 8.0A.

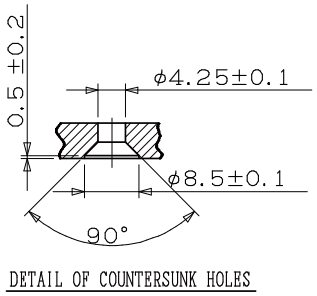
■ OUTLINE



DEMENSIONS Unit:mm

A	165.1MAX	M	19.05±0.05
B	150MAX	N	51.6±0.1
C	52MAX	P	---
D	55MAX	R	---
E	5.5	S	42.7
F	---	T	111.1
G	123.2MAX	U	φ6.5±0.1
H	32.54	V	φ6.5±0.05
J	---	W	---
K	15	X	250MIN
L	16		





DETAIL OF COUNTERSUNK HOLES

(All Dimensions without limits are nominal.)

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