

Mackay Marine JRC MAGNETRONS

JRC S-band Magnetron M1302L / M5020



GENERAL DESCRIPTION

M1302L is designed for the magnetron of s band radar system. The frequency range is fixed <3040 - 3060MHz> and the peak output power is 30kW.

Notes:

- 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:

Mean input power (W)	Heater Voltage (V)
Less than 25	6.3
25 to 62	5.3
62 to 100	4.5
- Measured at peak anode current 8.0A.

ELECTRICAL CHARACTERISTICS

PARAMETERS	MINIMUM	TYPICAL	MAXIMUM	UNITS
Heater voltage (note 1)	5.7	6.3	6.9	V
Preheat time	180	-	-	s
Peak anode voltage (note 2)	7.5	8.0	8.5	kV
Peak output power (note 2)	25	-	-	kW
Frequency (note 2)	3040	-	3060	MHz

JRC S-band Magnetron M1555



GENERAL DESCRIPTION

M1555 is designed for the magnetron of S band radar system. The frequency range is fixed <3040~3060MHz> and the peak output power is 30kW.

Notes:

- 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 (Pi) = Anode current x Anode voltage x Duty cycle (W)
- Measured at peak anode current 8.0A.

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	A
Preheat time	180	-	-	s
Peak anode voltage (note 2)	7.5	8.0	8.5	kV
Peak output power (note 2)	25	30	-	kW
Frequency (note 2)	3040	3043	3060	MHz

JRC X-band Magnetron M1568BS



GENERAL DESCRIPTION

M1568BS is designed for the magnetron of X band radar system. The frequency range is fixed <9380~9440MHz> and the peak output power is 25kW.

Notes:

- 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:

$$\text{Heater Voltage: } E_f = 6.3 \sqrt{1 - \frac{P_i}{100}} \text{ [V]}$$
 Mean input power (Pi) = Anode current x Anode voltage x Duty cycle (W)
- Measured at peak anode current 8.0A.

ELECTRICAL CHARACTERISTICS

PARAMETERS	MINIMUM	TYPICAL	MAXIMUM	UNITS
Heater voltage (note 1)	6.0	6.3	6.6	V
Heater current	0.43	0.52	0.6	A
Preheat time	120	-	-	s
Peak anode voltage (note 2)	7.2	8.0	8.5	kV
Peak output power (note 2)	22.5	25.0	-	kW
Frequency (note 2)	9380	9410	9440	MHz