

MA2876B MPD Magnetron Product Information

The MA2876B is a tunable 10 kW 9.375 GHz "positive pulse" magnetron for use in OEM airborne radars. The MA2876B corresponds to OEM outline specification 3612060-0001 and OEM purchase specification 2072724. It is designed to be tuned to exactly 9.375 GHz, to work up to 45,000 feet in altitude and to function between -55 °C and +85 °C. The MA2876B typically operates at 6.0 kilovolts and 6.0 amps peak.

Test Conditions

Parameter	Units	Test Condition		
		1	2	3
Pulse Width	μSec.	2.35	0.1	1.6
Duty, Du	(ratio)	0.00047	0.00008	0.0005
Time of Steepest Voltage Rise, t_{srV}	μSec.	0.2 (typical)	-	-
Filament Voltage, E_f	VDC	6.3±0.5%		
Minimum Cathode Warmup, t_k	Seconds	60		
Peak Plate Current	A	6.0		
Maximum VSWR	-	1.1:1		

Electrical Performance

Test	Units	Minimum	Nominal	Maximum
Heater Current, I_f	ADC	0.50	0.59	0.70
Minor Lobes	dB	8	-	-
Pulse Voltage, e_{px}	kV	5.7	6.0	6.3
RF Power Output, P_O	kW	10.0	-	-
Frequency, F	MHz	9370	9375	9380
Frequency Modulation (Vibration)	MHz	-	-	0.300
Pulling Factor (VSWR 1.3:1) F	MHz	-	-	15.0
Pushing Factor (6.0A±10%) F/i_b	MHz/A	-	-	1.5
Temp. Coefficient (-55 to +85°C)	MHz/°C	-	-	-0.07
RF Bandwidth, BW	MHz	-	-	2.5/t
RF Leakage	mW	-	-	5
Time Jitter	nSec. (rms)	-	-	5
Altitude	feet	-	-	45,000

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