

MA2824B MPD Magnetron Product Information

The MA2824B is a fixed frequency 10 kW 9.345 GHz "positive pulse" magnetron for use in various OEM airborne radars. The MA2824B cross-references to OEM outline specification 2069145-0701 and OEM purchase specification 2072715. It is designed to work up to 45,000 feet in altitude and between -55 °C and +85 °C. The MA2824B typically operates at 6.0 kilovolts and 6.0 amps peak.

Test Conditions

Parameter	Units	Test Condition			
		1	2	3	4
Pulse Width	µSec.	2.35	2.35	1.6	0.1
Duty, Du	(ratio)	0.00047	0.00014	0.001	0.00008
Time of Steepest Voltage Rise, t_{srV}	µSec.	0.2 (typ.)	0.20	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	9320	9345	9370
Pulling Factor (VSWR 1.3:1) DF	MHz	-	-	15.0
Pushing Factor (6.0A±10%) DF/ i_b	MHz/A	-	-	1.5
Temp. Coefficient (-55 to +85 °C)	MHz/°C	-	-	-0.25
RF Bandwidth, BW	MHz	-	-	2.5/t
RF Leakage	mW	-	-	3
Altitude	feet	-	-	45,000

Copyright © 2005 MPD Components, Inc.

316 East 9th Street
Owensboro, KY 42303
U.S.A.

800-803-6515 270-68563405 (fax) 270-685-6202

www.mpdcomponents.com