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MODEL NO. MEC 5497

2.5 to 7.5 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	1.93 A	-6.0 Vdc	-6.6 Vdc	2.5 A
HELIX	W/RF	GROUND	GROUND	GROUND	55 mA
	W/O RF				
GRID ON	138 V	0.2 mA	100 V	250 V	10 mA
GRID OFF	-250 V	0.05 mA	-250 V	-350 V	1.0 mA
CATHODE (Ek)	-5.60 kV	430 mA	-5.4 kV	-5.7 kV	475 mA
COLLECTOR #1	W/RF	3.584 kV	64% X Ek ±2%	425 mA	360 mA
	W/O RF				42 mA
COLLECTOR #2	W/RF	2.184 kV	39% X Ek ±2%	475 mA	35 mA
	W/O RF				383 mA

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
2.5	575	500	31
3.0	700	630	40
3.5	700	630	41
4.0	680	630	43
4.5	725	630	43
5.0	700	630	42
5.5	650	575	40
6.0	600	550	37
6.5	600	550	37
7.0	500	450	32
7.5	450	400	30

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.

NOTE 2: HEATER, COLLECTOR AND GRID VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	2:1	2.5:1
OUTPUT VSWR	2:1	2.5:1
MAXIMUM DUTY	—	CW
MIN HARMONIC SEPARATION	-5 dBc	-3 dBc
NOISE POWER DENSITY	-30 dBm/MHz	-20 dBm/MHz
PRIME POWER	1575 W	1650 W
TEMPERATURE RANGE	-40° to 85 °C	—

HV CONNECTIONS	
ELEMENT	COLOR
HEATER	BROWN
GRID	GREEN
CATHODE	YELLOW
COLLECTOR #1	RED
COLLECTOR #2	WHITE

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS W/O EQUALIZER.

LV CONNECTIONS	
ELEMENT	COLOR
THERMOSTAT	GREY
HELIX/GROUND	BLACK

An ISO 9001:2000 Quality System  
 Certified Company

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