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MODEL NO. MEC 3848N

8.0 TO 12.0 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	2.1 A	-6.1 Vdc	-6.5 Vdc	2.50 A
HELIX	W/ RF	GROUND	GROUND		315 mA
	W/O RF	* 230 mA ** 75 mA			
GRID ON	150 Vpk	0.0 mA	100 Vpk	300 Vpk	30 mA
GRID OFF	-350 Vdc	0.0 mA	-300 Vdc	-500 Vdc	0.5 mA
CATHODE (Ek)	-13.0 kV	1.8 A	-13 kV	-15 kV	2.5 A
COLLECTOR #1	8.97 kV	* 650 mA	69% X Ek ±2%		1.1 mA
COLLECTOR #2	6.24 kV	* 450 mA	48% X Ek ±2%		0.8 mA
COLLECTOR #3	4.55 kV	* 470 mA	35% X Ek ±2%		2.5 mA

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
8.0	6610	5000	48
8.5	7080	5000	48
9.0	7080	5000	49
9.5	6610	5000	50
10.0	6610	5000	50
10.5	7240	5000	49
11.0	6760	5000	48
11.5	6610	5000	44
12.0	5620	5000	41

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	1.82:1	2.0:1
OUTPUT VSWR	1.65:1	1.75:1
MAXIMUM DUTY	8%	8%
MAXIMUM PULSEWIDTH	50 μsec	100 μsec
GRID CAPACITANCE	50 pF	60 pF MAX
MIN HARMONIC SEPARATION	-13.0 dBc	-10 dBc
NOISE POWER DENSITY	-14 dBm/MHz	-10 dBm/MHz
PRIME POWER	1213 W	1700 W
TEMPERATURE RANGE	-40° to 85 °C	—

* WITH RF DRIVE
** WITHOUT RF DRIVE

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

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

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

An ISO 9001:2000 Quality System
Certified Company

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