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MODEL NO. MEC 3102

2.0 to 4.0 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS			
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX	
HEATER	-6.5 Vdc	4.3 A	-6.4 Vdc	-6.8 Vdc	5.00 A	
HELIX	W/ RF	GROUND	GROUND		800 mApk	
	W/O RF					600 mA
		70 mA				
GRID ON	157 Vpk	3.3 mA	100 Vpk	300 Vpk	30 mApk	
GRID OFF	-325 Vdc	.010 mA	-300 Vdc	-500 Vdc	1 mA	
CATHODE (Ek)	-10.9 kV	2.3 Apk	-10.2 kV	-11.2 kV	2.5 Apk	
COLLECTOR W/ RF	#1	8.7 kV	530 mApk	80% X Ek ±2%		.7 Apk
	#2	7.7 kV	780 mApk	71% X Ek ±2%		1.2 Apk
	#3	4.21 kV	425 mApk	39% X Ek ±2%		2.5 Apk

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
2.0	5500	4500	35
2.25	5500	4500	35
2.5	6000	4500	35
2.75	7000	4500	35
3.0	7000	4500	35
3.25	7000	4500	35
3.5	6000	4500	35
3.75	5500	4500	35
4.0	5500	4500	35

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	2.0:1	2.5:1
OUTPUT VSWR	1.7:1	2.0:1
MAXIMUM DUTY	—	6%
MAXIMUM PULSEWIDTH	—	100 μsec
GRID CAPACITANCE	59 pF	65 pF
MIN HARMONIC SEPARATION	-3.8 dBc	-3 dBc
NOISE POWER DENSITY	-30 dBm/MHz	5 dBm/MHz
PRIME POWER	1220 W	1800 W
TEMPERATURE RANGE	-40° to 85 °C	—

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

REQUIRED DRIVE IS WITH EQUALIZER

An ISO 9001:2000 Quality System
 Certified Company

11/08