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MODEL NO. MTD 5119  
 MEC 5119 (GR)  
 0.8 to 2.8 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	3.4 A	-5.2 Vdc	-6.5 Vdc	4.5 A
HELIX	W/RF	GROUND	GROUND	GROUND	80 mA
	W/O RF				
ANODE	250 Vdc	1.5 mA	0	500 Vdc	4 mA
GRID ON	120 Vdc	0.5 mA	100 Vdc	250 Vdc	10 mA
GRID OFF	-250 Vdc	0.1 mA	-200 Vdc	-500 Vdc	1 mA
CATHODE (Ek)	-3.75 kV	480 mA	-3 kV	-4 kV	550 mA
COLLECTOR W/ RF	3.2 kV	440 mA	87% X Ek ±2%		550 mA

NOTE 1: CATHODE AND ANODE VOLTAGES ARE MEASURED WITH RESPECT TO GROUND.

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

NOTE 3: ANODE VOLTAGE NOT REQUIRED WITH GRID MODULATED VERSION.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	1.6:1	2.5:1
OUTPUT VSWR	1.6:1	2.5:1
MAXIMUM DUTY	—	CW
GRID CAPACITANCE	50 pF	65 pF
MIN HARMONIC SEPARATION	-3.5/-8.0 dBc	-2 */-3 ** dBc
NOISE POWER DENSITY	-25 dBm/MHz	-20 dBm/MHz
PRIME POWER	1560 W	1700 W
TEMPERATURE RANGE	-40° to 85 °C	—

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
0.8	210	200 *	33
0.9	355	250	35
1.0	390	250 **	43
1.2	355	250	46
1.4	315	250	47
1.6	325	250	47
1.8	325	250	47
2.0	315	250	45
2.2	315	250	42
2.4	325	250	39
2.6	335	250	35
2.8	335	250	32

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS W/O EQUALIZER.

±4 dB GAIN EQUALIZER AVAILABLE.

An ISO 9001:2000 Quality System  
 Certified Company

11/08