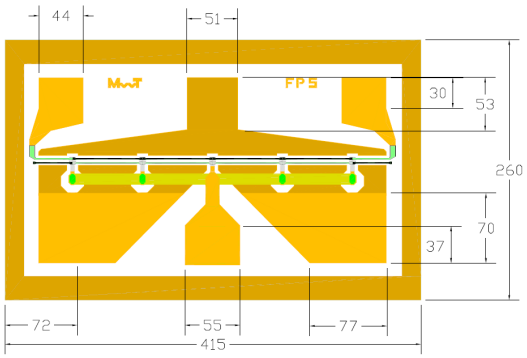
MwT-5F

26 GHz High Gain, Dual Gate GaAs FET

Features:

- **21 dBm P1dB at 12 GHz**
- **19 dB Small Signal Gain at 12 GHz**
- **0.25 Micron Refractory Metal/Gold Gate**
- **Excellent for High Gain and High Linear Amplifier Applications**
- **Ideal for Commercial, Military, Hi-Rel Space Applications**
- **300 Micron Dual Gate Width**
- **Choice of Chip and One Package Type**



Chip Dimensions: 415 x 260 microns
Chip Thickness: 100 microns

Description:

The MwT-5F is a dual gate GaAs MESFET device whose nominal 0.25 micron gate length and 300 micron dual gate width make it ideally suited to applications requiring high gain and high linearity in the 500 MHz to 26 GHz frequency range. MwT-5F is equally effective for either wideband (e.g. 2 to 26 GHz) or narrow-band applications. All chips are passivated with SiN (Silicon Nitride).

RF Specifications: • *at Ta= 25° C*

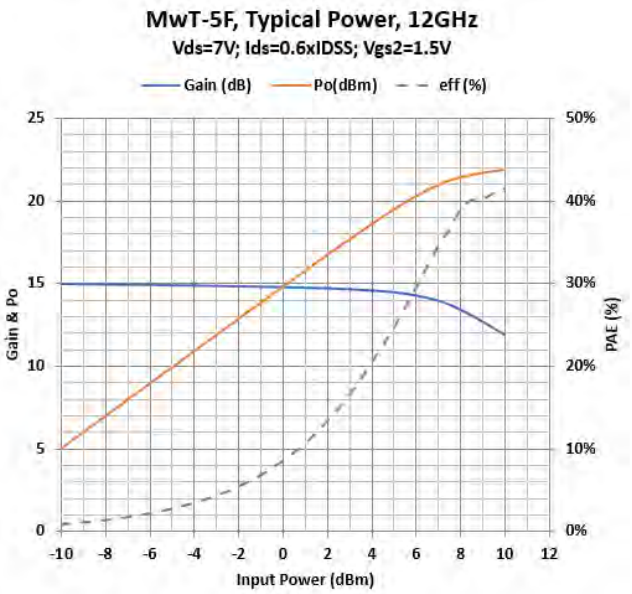
PARAMETERS & CONDITIONS	SYMBOL	FREQ	UNITS	TYP
Output Power at 1dB Compression Vds=7.0V Ids=6.0VxIDSS Vgs2=1.5V	P1dB	12 GHz	dBm	21.0
Output Third Order Intercept Point Vds=7.0V Ids=6.0VxIDSS Vgs2=1.5V	OIP3	12GHz	dBm	31
Small Signal Gain Vds=6.0V Ids=0.6xIDSS	SSG	12 GHz	dB	19.0
Optimum Noise Figure Vds=6.0V Ids=30mA	NF Opt	12 GHz	dB	3.5
Gain @ Opt NF Vds=6.0V Ids=30mA	GA	12 GHz	dB	11

DC Specifications: • *at Ta= 25 °C*

PARAMETERS & CONDITIONS	SYMBOL	UNITS	MIN	TYP	MAX
Saturated Drain Current Vds= 4.0 V VG1S=VG2S=0.0V	IDSS	mA	60		80
Transconductance Vds= 2.0 V VG2S=0.0V	Gm	mS	33	48	
Pinch-off Voltage Vds= 3.0 VG2S=0.0V IDS=0mA	Vp	V		-1.0	
Gate-to-Source Breakdown Voltage Igs= -0.4 mA	BVGSO	V	-16	-18	
Gate-to-Drain Breakdown Voltage Igd= -0.4 mA	BVGDO	V	-15	-17	
Thermal Resistance *MwT-5F Chip*	Rth	°C/W		120	

**Overall Rth depends on case mounting*

MicroWave Technology, Inc., 4268 Solar Way, Fremont, CA 94538
510-651-6700 FAX 510-952-4000 WEB www.mwtinc.com



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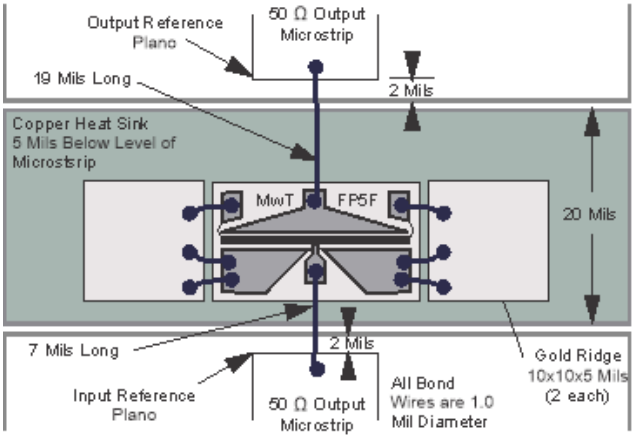
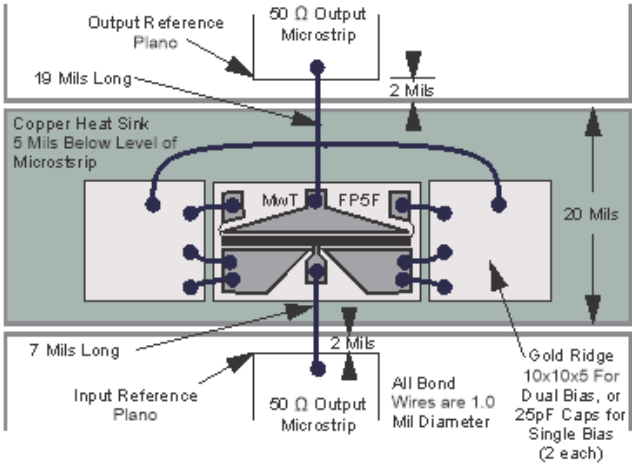
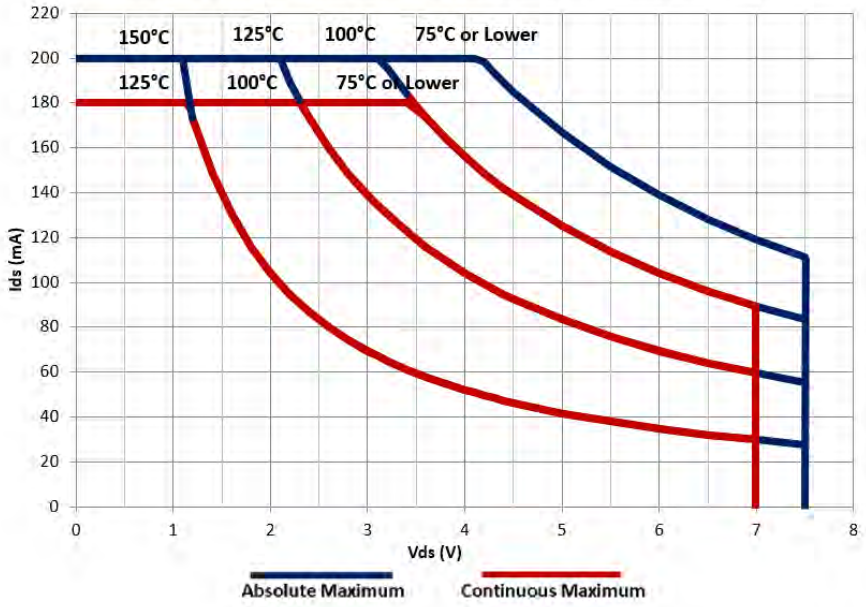
MwT-5F
DUAL BIAS



MwT-5F
OPTIONAL BONDING



Thermal Operating Limits vs Chip Backside Temperature of MwT-5F



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