



Chip Dimensions: 775 x 343 microns
Chip Thickness: 100 microns

Features:

- +30 dBm typical Output Power at 12 GHz
- 9 dB typical Small Signal Gain at 12 GHz
- 40% typical PAE at 12 GHz
- 0.3 x 2400 Micron Refractory Metal/Gold Gate
- Sorted into 40 mA Idss Bin Ranges
- Excellent for High Power, and High Power Added Efficiency
- Ideal for Commercial, Military, Hi-Rel Space Applications

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The MwT-11 is GaAs MESFET device whose nominal 0.3 micron gate length and 2400 microns gate width make it ideally suited for applications requiring high power up to 1 watt. The chip is produced using MwT's reliable metal systems and all devices from each wafer are screened to insure reliability. All chips are passivated using MwT's patented "Diamond-Like Carbon" process for increased durability.

RF Specifications at Ta= 25 °C

SYMBOL	PARAMETERS & CONDITIONS	FREQ	UNITS	MIN	TYP
OIP3	Output IP3 with two tones Vds=6.0 V Ids=0.6xIDSS=300 mA		dBm		45
P1dB	Output Power at 1dB Compression Vds=6.0 V Ids=0.6xIDSS=300 mA	12 GHz	dBm	28.0	30.0
SSG	Small Signal Gain VDS=6.0 V Ids=0.6xIDSS=300 mA	12 GHz	dB	7.0	9.0
PAE	Power Added Efficiency at P1dB VDS=6.0 V Ids=0.6xIDSS=300 mA	12 GHz	%		40
IDSS	Recommended IDSS Range		mA		400-800

DC Specifications at Ta= 25 °C

SYMBOL	PARAMETERS & CONDITIONS	UNITS	MIN	TYP	MAX
IDSS	Saturated Drain Current Vds=3.0 V Vgs=0.0 V	mA	240		920
Gm	Transconductance Vds=2.0 V Vgs=0.0 V	mS	290	380	
Vp	Pinch-off Voltage Vds=3.0 V Ids=16 mA	V		-2.5	-5.0
BVGSO	Gate-to-Source Breakdown Voltage Igs= -2.4 mA	V	-6.0	-12.0	
BVGDO	Gate-to-Drain Breakdown Voltage Igd= -2.4 mA	V	-8.0	-12.0	
Rth	Chip Thermal Resistance	C/W		28	

Bin Selection Guide

Bin	A	B	C	D
Idss	240-	360-	480-	720-
Range	360	480	720	840