

FEATURES

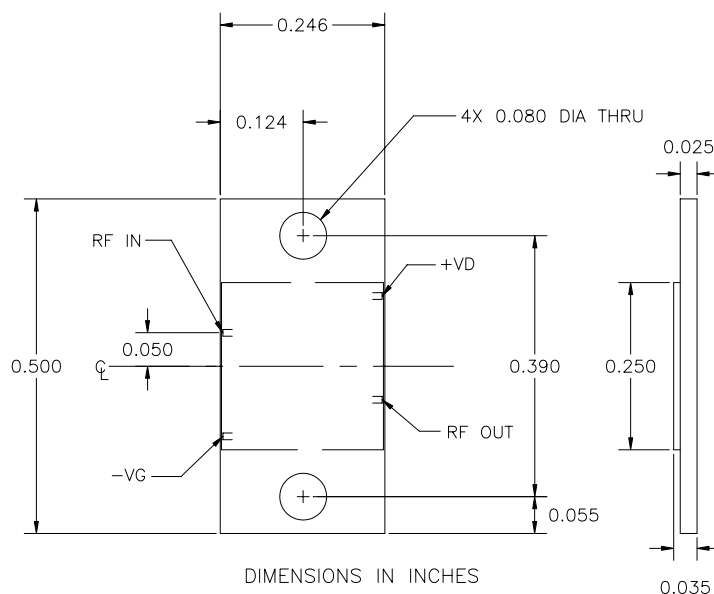
- 6.0 – 18.0 GHz Bandwidth
- Input/Output Impedance Matched to 50 Ohms
- +27.0 dBm Output Power at 1dB Compression
- 8.5 dB Power Gain at 1dB Compression
- 30% Power Added Efficiency



Caution! ESD sensitive device.

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETERS/TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{1dB}	Output Power at 1dB Compression $f = 6.0\text{-}18.0\text{GHz}$ $V_{DS} = 8\text{ V}$, $I_{DQ} \approx 180\text{mA}$	26.0	27.0		dBm
G_{1dB}	Gain at 1dB Compression $f = 6.0\text{-}18.0\text{GHz}$ $V_{DS} = 8\text{ V}$, $I_{DQ} \approx 180\text{mA}$	7.5	8.5		dB
ΔG	Gain Flatness $f = 6.0\text{-}18.0\text{GHz}$ $V_{DS} = 8\text{ V}$, $I_{DQ} \approx 180\text{mA}$			± 1.0	dB
VSWR	Input/Output VSWR $f = 6.0\text{-}18.0\text{GHz}$		1.5:1	2.0:1	
PAE	Power Added Efficiency at 1dB Compression $V_{DS} = 8\text{ V}$, $I_{DQ} \approx 180\text{mA}$ $f = 6.0\text{-}18.0\text{ GHz}$		30		%
I_{d1dB}	Drain Current at 1dB Compression $f = 6.0\text{-}18.0\text{ GHz}$		200	250	mA



OUTLINE DRAWING

Specifications are subject to change without notice.

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EIM0618-0.5

UPDATED 02/03/2005

6.0 – 18.0 GHz ½-Watt Power Module

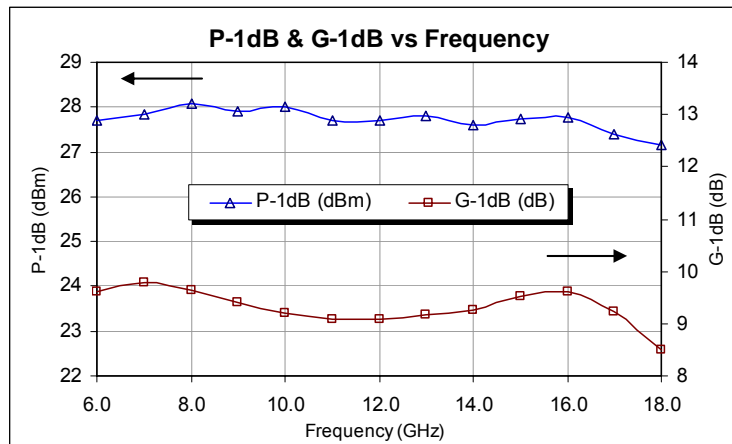
ABSOLUTE MAXIMUM RATINGS FOR CONTINUOUS OPERATION^{1,2}

SYMBOL	CHARACTERISTIC	ABSOLUTE ¹	CONTINUOUS ²
V _{DS}	Drain to Source Voltage	12 V	8 V
V _{GS}	Gate to Source Voltage	-8 V	-3 V
I _{DS}	Drain Current	IDSS	380 mA
I _{GSF}	Forward Gate Current	60 mA	10 mA
P _{IN}	Input Power	27 dBm	@ 3dB compression
P _T	Total Power Dissipation	3.6 W	3.0 W
T _{CH}	Channel Temperature	175°C	150°C
T _{STG}	Storage Temperature	-65/+175°C	-65/+150°C

Note: 1 Exceeding any of the above ratings may result in permanent damage.

2. Exceeding any of the above ratings may reduce MTTF below design goals.

Typical Power Data (V_{DS} = 8 V, I_{DSQ} = 180 mA)



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