



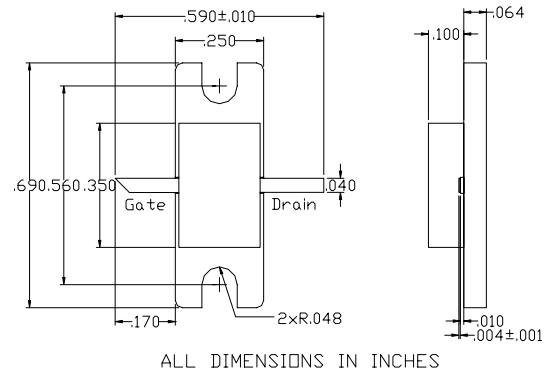
EFE960EV-250P

ISSUED 01/03/2006

Low Distortion GaAs Power FET

FEATURES

- Non-Hermetic 250mil Metal Flange Package
- +36.5 dBm Typical Output Power
- 15.0 dB Typical Power Gain at 2GHz
- 0.6 x 9600 Micron Recessed "Mushroom" Gate
- Si₃N₄ Passivation
- Advanced Epitaxial Heterojunction Profile Provides Extra High Power Efficiency and High Reliability



Caution! ESD sensitive device.

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

SYMBOL	PARAMETERS/TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{1dB}	Output Power at 1dB Compression V _{DS} = 10 V, I _{DS} ≈ 50% I _{DSS}	35.0	36.5 36.5		dBm
G _{1dB}	Gain at 1dB Compression V _{DS} = 10 V, I _{DS} ≈ 50% I _{DSS}	13.5	15.0 11.0		dB
PAE	Power Added Efficiency at 1dB Compression V _{DS} = 10 V, I _{DS} ≈ 50% I _{DSS}		36		%
I _{DSS}	Saturated Drain Current V _{DS} = 3 V, V _{GS} = 0 V	1500	2000	2500	mA
G _M	Transconductance V _{DS} = 3 V, V _{GS} = 0 V		1000		mS
V _P	Pinch-off Voltage V _{DS} = 3 V, I _{DS} = 20 mA		-2.5	-4.0	V
BV _{GD}	Drain Breakdown Voltage I _{GD} = 9.6 mA	-19	-22		V
BV _{GS}	Source Breakdown Voltage I _{GS} = 9.6 mA	-10	-20		V
R _{TH}	Thermal Resistance		5.5*	6.0*	°C/W

* Overall R_{th} depends on case mounting.

MAXIMUM RATINGS^{1,2} (T_a = 25°C)

SYMBOL	CHARACTERISTIC	ABSOLUTE	CONTINUOUS
V _{DS}	Drain to Source Voltage	15 V	10 V
V _{GS}	Gate to Source Voltage	-5 V	-4 V
I _{DS}	Drain Current	I _{dss}	2.5 A
I _{GSF}	Forward Gate Current	43.2 mA	14.4 mA
I _{GSR}	Reverse Gate Current	-7.2 mA	-2.4 mA
P _{IN}	Input Power	33.5 dBm	@ 3dB compression
P _T	Total Power Dissipation	25 W	25 W
T _{CH}	Channel Temperature	175°C	175°C
T _{STG}	Storage Temperature	-65/+175°C	-65/+175°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.