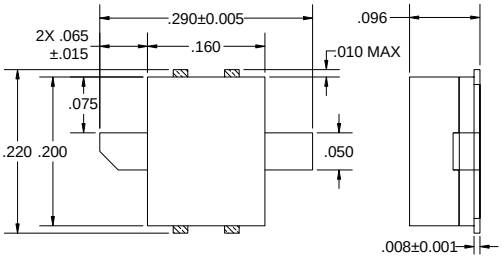
EFA240D-CP083

Low Distortion GaAs Power FET

UPDATED 06/13/2006

FEATURES

- NON-HERMETIC SURFACE MOUNT 160MIL METAL CERAMIC PACKAGE
- +30.5dBm OUTPUT POWER
- 17.0 dB TYPICAL POWER GAIN AT 2 GHz
- 0.5x2400 MICRON RECESSED "MUSHROOM" GATE
- Si_3N_4 PASSIVATION
- ADVANCED EPITAXIAL DOPING PROFILE PROVIDES HIGH POWER EFFICIENCY, LINEARITY AND RELIABILITY



All Dimensions in Inches

Caution! ESD sensitive device.

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

SYMBOL	PARAMETER/TEST CONDITIONS		MIN	TYP	MAX	UNITS
P_{1dB}	Output Power at 1dB Compression Vds = 8 V, Ids=50% Idss	f = 2.0 GHz f = 4.0 GHz	29.0	30.5 30.5		dBm
G_{1dB}	Gain at 1dB Compression Vds = 8 V, Ids=50% Idss	f = 2.0 GHz f = 4.0 GHz	15.5	17.0 12.0		dB
PAE	Power Added Efficiency at 1dB Compression Vds = 8 V, Ids=50% Idss	f = 2.0 GHz		40		%
I_{DSS}	Saturated Drain Current	V_{DS} = 3 V, V_{GS} = 0 V	400	680	880	mA
G_M	Transconductance	V_{DS} = 3 V, V_{GS} = 0 V	280	360		mS
V_P	Pinch-off Voltage	V_{DS} = 3 V, I_{DS} = 6 mA		-2.0	-3.5	V
BV_{GD}	Drain Breakdown Voltage	I_{GD} = 2.4 mA	-13	-15		V
BV_{GS}	Source Breakdown Voltage	I_{GS} = 2.4 mA	-7	-14		V
R_{TH}*	Thermal Resistance			25	30	°C/W

Notes: * Overall Rth depends on case mounting.

MAXIMUM RATINGS AT 25°C

SYMBOLS	PARAMETERS	ABSOLUTE[1]	CONTINUOUS[2]
Vds	Drain-Source Voltage	10V	8V
Vgs	Gate-Source Voltage	-5V	-4V
Igsf	Forward Gate Current	10.8 mA	3.6 mA
Igsr	Reverse Gate Current	-1.8 mA	-0.6 mA
Pin	Input Power	27 dBm	@ 3dB Compression
Tch	Channel Temperature	175°C	175°C
Tstg	Storage Temperature	-65/175°C	-65/175°C
Pt	Total Power Dissipation	5.0W	5.0W

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.