



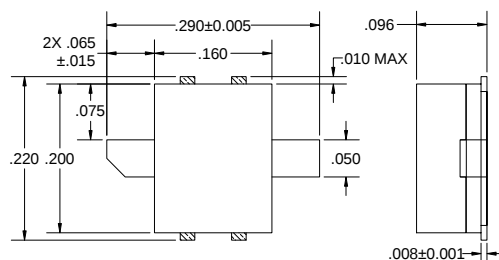
EFA240D-CP083

UPDATED 06/13/2006

Low Distortion GaAs Power FET

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
- Si₃N₄ PASSIVATION
- ADVANCED EPITAXIAL DOPING PROFILE PROVIDES HIGH POWER EFFICIENCY, LINEARITY AND RELIABILITY



All Dimensions in Inches

ELECTRICAL CHARACTERISTICS (T_a = 25°C)



Caution! ESD sensitive device.

SYMBOL	PARAMETER/TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{1dB}	Output Power at 1dB Compression V _{ds} = 8 V, I _{ds} =50% I _{dss} f = 2.0 GHz f = 4.0 GHz	29.0	30.5 30.5		dBm
G _{1dB}	Gain at 1dB Compression V _{ds} = 8 V, I _{ds} =50% I _{dss} f = 2.0 GHz f = 4.0 GHz	15.5	17.0 12.0		dB
PAE	Power Added Efficiency at 1dB Compression V _{ds} = 8 V, I _{ds} =50% I _{dss} 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 R_{th} depends on case mounting.

MAXIMUM RATINGS AT 25°C

SYMBOLS	PARAMETERS	ABSOLUTE ¹	CONTINUOUS ²
V _{ds}	Drain-Source Voltage	10V	8V
V _{gs}	Gate-Source Voltage	-5V	-4V
I _{gsf}	Forward Gate Current	10.8 mA	3.6 mA
I _{gsr}	Reverse Gate Current	-1.8 mA	-0.6 mA
P _{in}	Input Power	27 dBm	@ 3dB Compression
T _{ch}	Channel Temperature	175°C	175°C
T _{stg}	Storage Temperature	-65/175°C	-65/175°C
P _t	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.

Specifications are subject to change without notice.

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