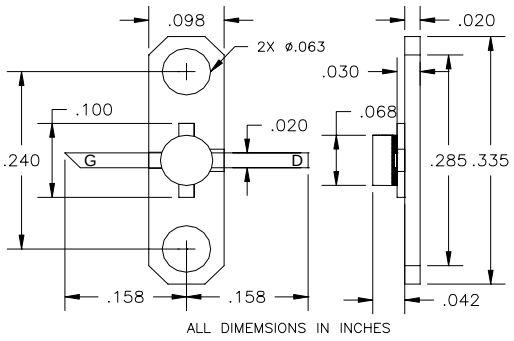
EFA240BV-100P

Low Distortion GaAs Power FET

ISSUED 09/28/2007

- NON-HERMETIC 100MIL METAL FLANGE PACKAGE
- +31.0dBm TYPICAL OUTPUT POWER
- 8.5dB TYPICAL POWER GAIN AT 12GHz
- 0.3 X 2400 MICRON RECESSED "MUSHROOM" GATE
- Si_3N_4 PASSIVATION
- ADVANCED EPITAXIAL DOPING PROFILE PROVIDES HIGH POWER EFFICIENCY, LINEARITY AND RELIABILITY



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOLS	PARAMETERS/TEST CONDITIONS		MIN	TYP	MAX	UNIT
P_{1dB}	Output Power at 1dB Compression V_{DS}=8V, I_{DS}=50% I_{DSS}	f= 12GHz f= 18GHz	29.0	31.0 31.0		dBm
G_{1dB}	Gain at 1dB Compression V_{DS}=8V, I_{DS}=50% I_{DSS}	f= 12GHz f= 18GHz	7	8.5 6.0		dB
PAE	Power Added Efficiency at 1dB Compression V_{DS}=8V, I_{DS}=50% I_{DSS}	f=12GHz		33		%
I_{DSS}	Saturated Drain Current	V_{DS}=3V, V_{GS}=0V	400	680	880	mA
Gm	Transconductance	V_{DS}=3V, V_{GS}=0V	280	360		mS
Vp	Pinch-off Voltage	V_{DS}=3V,I_{DS}=6mA		-2.0	-3.5	V
BV_{GD}	Drain Breakdown Voltage	I_{GD}=2.4mA	-13	-15		V
BV_{GS}	Source Breakdown Voltage	I_{GS}=2.4mA	-7	-14		V
Rth	Thermal Resistance (Au-Sn Eutectic Attach)			15		°C/W

Note: * Overall Rth depends on case mounting.

MAXIMUM RATINGS AT 25°C

SYMBOLS	PARAMETERS	ABSOLUTE[1]	CONTINUOUS[2]
V_{DS}	Drain-Source Voltage	12V	8V
V_{GS}	Gate-Source Voltage	-8V	-4V
Igf	Forward Gate Current	60 mA	10 mA
Igr	Reverse Gate Current	-1.8 mA	-0.6 mA
Pin	Input Power	29 dBm	@ 3dB Compression
Tch	Channel Temperature	175°C	175°C
Tstg	Storage Temperature	-65/175°C	-65/175°C
Pt	Total Power Dissipation	9.1 W	7.6 W

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.

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.