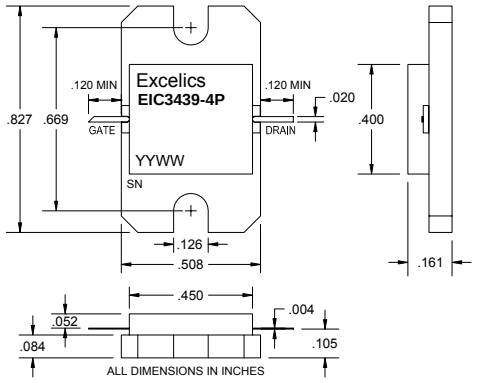
EIB3439-4P

UPDATED 03/02/2006

3.40-3.90 GHz 4W Internally Matched Power FET

FEATURES

- **3.40-3.90 GHz Bandwidth**
- **Input/Output Impedance Matched to 50 Ohms**
- **+36.5 dBm Output Power at 1dB Compression**
- **12.0 dB Power Gain at 1dB Compression**
- **30% Power Added Efficiency**
- **Non-Hermetic Metal Flange Package**



ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Caution! ESD sensitive device.

SYMBOL	PARAMETERS/TEST CONDITIONS[1]	MIN	TYP	MAX	UNITS
P_{1dB}	Output Power at 1dB Compression f = 3.40-3.90GHz V_{DS} = 8 V, I_{DSQ} ≈ 1600mA	35.5	36.5		dBm
G_{1dB}	Gain at 1dB Compression f = 3.40-3.90GHz V_{DS} = 8 V, I_{DSQ} ≈ 1600mA	11.0	12.0		dB
ΔG	Gain Flatness f = 3.40-3.90GHz V_{DS} = 8 V, I_{DSQ} ≈ 1600mA			±0.6	dB
PAE	Power Added Efficiency at 1dB Compression V_{DS} = 8 V, I_{DSQ} ≈ 1600mA f = 3.40-3.90GHz		30		%
Id_{1dB}	Drain Current at 1dB Compression f = 3.40-3.90GHz		1700	2000	mA
I_{DSS}	Saturated Drain Current V_{DS} = 3 V, V_{GS} = 0 V		2800	3500	mA
V_P	Pinch-off Voltage V_{DS} = 3 V, I_{DS} = 28 mA		-2.0	-3.5	V
R_{TH}	Thermal Resistance[2]		5.5	6.0	°C/W

Note: 1) Tested with 100 Ohm gate resistor. 2) Overall Rth depends on case mounting.

ABSOLUTE MAXIMUM RATING[1,2]

SYMBOL	CHARACTERISTIC	ABSOLUTE[1]	CONTINUOUS[2]
V_{DS}	Drain to Source Voltage	12 V	8 V
V_{GS}	Gate to Source Voltage	-6.0 V	-4.0 V
I_{GSF}	Forward Gate Current	43.2 mA	14.4 mA
I_{GSR}	Reserve Gate Current	-7.2 mA	-2.4 mA
P_{IN}	Input Power	36.5 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	25 W	25 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.