

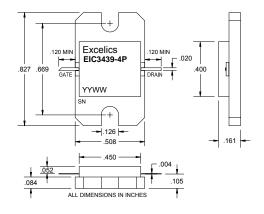
EIB3439-4P

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 sen	sitive dev	vice.
SYMBOL	PARAMETERS/TEST CONDITIONS ¹	MIN	ТҮР	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 $f = 3.40-3.90GHz$ $V_{DS} = 8 \text{ V}, I_{DSQ} \approx 1600 \text{ mA}$	11.0	12.0		dB
ΔG	Gain Flatnessf = $3.40-3.90$ GHz V_{DS} = 8 V, $I_{DSQ} \approx 1600$ mA			±0.6	dB
PAE	Power Added Efficiency at 1dB Compression V_{DS} = 8 V, $I_{DSQ} \approx 1600$ mAf = 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
VP	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					

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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
Тсн	Channel Temperature	175°C	175°C
T _{STG}	Storage Temperature	-65/+175°C	-65/+175°C
PT	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.