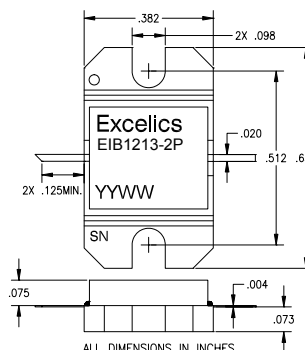


FEATURES

- 12.75-13.25 GHz Bandwidth
- Input/Output Impedance Matched to 50 Ohms
- +33.0 dBm Output Power at 1dB Compression
- 8.5 dB Power Gain at 1dB Compression
- 25% Power Added Efficiency
- -46 dBc IM3 at PO = 22.0 dBm SCL
- 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 = 12.75-13.25GHz V _{DS} = 8 V, I _{DSQ} ≈ 800mA	32.0	33.0		dBm
G_{1dB}	Gain at 1dB Compression f = 12.75-13.25GHz V _{DS} = 8 V, I _{DSQ} ≈ 800mA	7.50	8.50		dB
ΔG	Gain Flatness f = 12.75-13.25GHz V _{DS} = 8 V, I _{DSQ} ≈ 800mA			±0.6	dB
PAE	Power Added Efficiency at 1dB Compression V _{DS} = 8 V, I _{DSQ} ≈ 800mA f = 12.75-13.25GHz		25		%
I_{d1dB}	Drain Current at 1dB Compression f = 12.75-13.25GHz		850	960	mA
IM3	Output 3rd Order Intermodulation Distortion Δf = 10 MHz 2-Tone Test; P _{out} = 22.0 dBm S.C.L. ² V _{DS} = 8 V, I _{DSQ} ≈ 65% IDSS f = 13.25GHz	-43	-46		dBc
I_{DSS}	Saturated Drain Current V _{DS} = 3 V, V _{GS} = 0 V		1360	1700	mA
V_P	Pinch-off Voltage V _{DS} = 3 V, I _{DS} = 12 mA		-2.5	-3.5	V
R_{TH}	Thermal Resistance ³		8.0	9.0	°C/W

Note: 1) Tested with 100 Ohm gate resistor. 2) S.C.L. = Single Carrier Level. 3) 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	-5	-4V
I_{gsf}	Forward Gate Current	21.6mA	7.2mA
I_{gsr}	Reverse Gate Current	-3.6mA	-1.2mA
P_{in}	Input Power	32.0dBm	@ 3dB Compression
T_{ch}	Channel Temperature	175 °C	175 °C
T_{stg}	Storage Temperature	-65 to +175 °C	-65 to +175 °C
P_t	Total Power Dissipation	16W	16W

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.