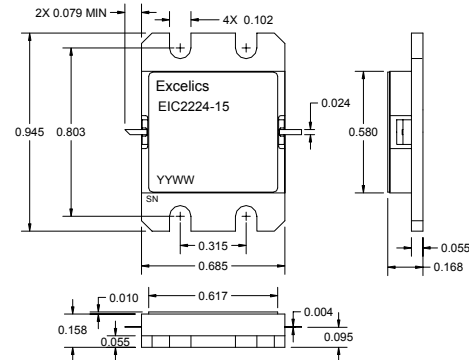


2.20 – 2.40 GHz 15W Internally Matched Power FET

FEATURES

- 2.20– 2.40GHz Bandwidth
- Input/Output Impedance Matched to 50 Ohms
- +42.5 dBm Output Power at 1dB Compression
- 13.0 dB Power Gain at 1dB Compression
- 35% Power Added Efficiency
- Hermetic Metal Flange Package
- 100% Tested for DC, RF, and R_{TH}



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



Caution! ESD sensitive device.

SYMBOLS	PARAMETERS/TEST CONDITIONS ¹	MIN	TYP	MAX	UNIT
P_{1dB}	Output Power at 1dB Compression $f = 2.20\text{-}2.40\text{GHz}$ $V_{DS} = 10\text{V}, I_{DSQ} \approx 4.6\text{A}$	41.5	42.5		dBm
G_{1dB}	Gain at 1dB Compression $f = 2.20\text{-}2.40\text{GHz}$ $V_{DS} = 10\text{V}, I_{DSQ} \approx 4.6\text{A}$	12.0	13.0		dB
ΔG	Gain Flatness $f = 2.20\text{-}2.40\text{GHz}$ $V_{DS} = 10\text{V}, I_{DSQ} \approx 4.6\text{A}$			± 0.6	dB
PAE	Power Added Efficiency at 1dB Compression $f = 2.20\text{-}2.40\text{GHz}$ $V_{DS} = 10\text{V}, I_{DSQ} \approx 4.6\text{A}$		35		%
I_{d1dB}	Drain Current at 1dB Compression $f = 2.20\text{-}2.40\text{GHz}$		4.8	5.4	A
I_{DSS}	Saturated Drain Current $V_{DS} = 3\text{V}, V_{GS} = 0\text{V}$		8.6	10.8	A
V_P	Pinch-off Voltage $V_{DS} = 3\text{V}, I_{DS} = 86\text{mA}$		-2.5	-4.0	V
R_{TH}	Thermal Resistance ²		1.7	1.9	$^\circ\text{C/W}$

Note: 1. Tested with 25 Ohm gate resistor.
 2. Overall R_{th} depends on case mounting.

ABSOLUTE MAXIMUM RATING^{1,2}

SYMBOLS	PARAMETERS	ABSOLUTE ¹	CONTINUOUS ²
V_{ds}	Drain-Source Voltage	15V	10V
V_{gs}	Gate-Source Voltage	-5V	-4V
I_{gsf}	Forward Gate Current	192mA	64mA
I_{gsr}	Reverse Gate Current	-33mA	-11mA
P_{in}	Input Power	42.0dBm	@ 3dB Compression
T_{ch}	Channel Temperature	175 $^\circ\text{C}$	175 $^\circ\text{C}$
T_{stg}	Storage Temperature	-65 to +175 $^\circ\text{C}$	-65 to +175 $^\circ\text{C}$
P_t	Total Power Dissipation	79W	79W

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.