

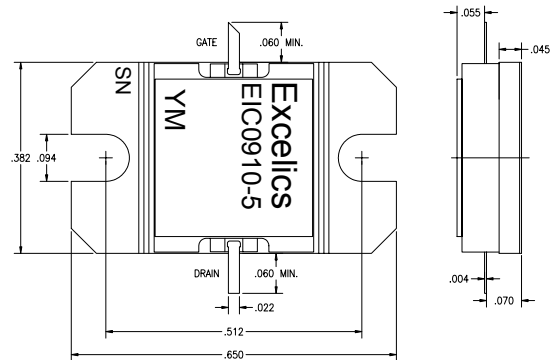


EIC0910-5

ISSUED DATE: 04-19-04

9.50-10.50GHz, 5W Internally Matched Power FET

- 9.50-10.50 GHz BANDWIDTH AND INPUT/OUTPUT IMPEDANCE MATCHED TO 50 OHM
- HIGH PAE: 30% TYPICAL
- +37.5 dBm TYPICAL P_{1dB} OUTPUT POWER
- 7dB TYPICAL G_{1dB} POWER GAIN
- HERMETIC METAL FLANGE PACKAGE



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOLS	PARAMETERS/TEST CONDITIONS	EIC0910-5			UNIT
		MIN	TYP	MAX	
P_{1dB}	Output Power at 1dB Compression f=9.5-10.5GHz, V _{ds} =10V, I _d sq=1600mA	36.5	37.5		dBm
G_{1dB}	Gain at 1dB Compression f=9.5-10.5GHz, V _{ds} =10V, I _d sq=1600mA	6	7		dB
ΔG	Gain Flatness f = 9.5-10.5GHz, V _{ds} = 10 V, I _d sq = 1600mA			±0.6	dB
PAE	Power Added Efficiency at 1dB compression f=9.5-10.5GHz, V _{ds} =10V, I _d sq=1600mA		30		%
I_d1dB	Drain Current at 1dB Compression		1700	1900	mA
IM3	Output 3 rd Order Intermodulation Distortion f=10.5GHz Δf=10MHz 2-Tone Test. P _{out} =26.5 dBm S.C.L I _{ds} @ 65% I _d ss	-43	-46		dBc
I_dss	Saturated Drain Current V _{ds} =3V, V _{gs} =0V		2900	3500	mA
V_p	Pinch-off Voltage V _{ds} =3V, I _{ds} =30mA		-2.5	-4	V
R_{th}	Thermal Resistance (Au-Sn Eutectic Attach)		5.0	5.5	°C/W

ABSOLUTE MAXIMUM RATINGS FOR CONTINUOUS OPERATION AT 25°C

SYMBOLS	PARAMETERS	CONTINUOUS ^{1,2}
V_{ds}	Drain-Source Voltage	10V
V_{gs}	Gate-Source Voltage	-4.5V
I_{ds}	Drain Current	I _d ss
I_{gsf}	Forward Gate Current	60mA
P_{in}	Input Power	@ 3dB Compression
T_{ch}	Channel Temperature	150 °C
T_{stg}	Storage Temperature	-65 to +150 °C
P_t	Total Power Dissipation	23W

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.