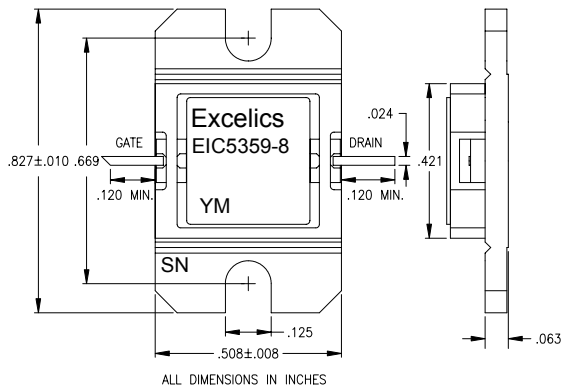




EIC5359-8

5.30-5.90GHz, 8W Internally Matched Power FET

- 5.30-5.90 GHz BANDWIDTH
- Input/Output Impedance Matched to 50 Ohms
- +39.5 dBm Output Power at 1dB Compression
- 10 dB Power Gain at 1dB Compression
- 33% Power Added Efficiency
- -46 dBc IM3 at $P_o = 28.5$ dBm
- Hermetic Metal Flange Package



ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOLS	PARAMETERS/TEST CONDITIONS	EIC5359-8			UNIT
		MIN	TYP	MAX	
P_{1dB}	Output Power at 1dB Compression $f=5.30-5.90GHz, V_{ds}=10V, I_{dsq}=2200mA$	38.5	39.5		dBm
G_{1dB}	Gain at 1dB Compression $f=5.30-5.90GHz, V_{ds}=10V, I_{dsq}=2200mA$	9	10		dB
PAE	Power Added Efficiency at 1dB compression $f=5.30-5.90GHz, V_{ds}=10V, I_{dsq}=2200mA$		33		%
I_{d1dB}	Drain Current at 1dB Compression		2200	2600	mA
IM3	Output 3 rd Order Intermodulation Distortion $f=5.90GHz, \Delta f=10MHz$ 2-Tone Test. $P_{out}=28.5dBm$ S.C.L	-43	-46		dBc
I_{dss}	Saturated Drain Current $V_{ds}=3V, V_{gs}=0V$		4000	4500	mA
V_p	Pinch-off Voltage $V_{ds}=3V, I_{ds}=40mA$		-2.5	-4	V
R_{th}	Thermal Resistance (Au-Sn Eutectic Attach)		3.5	4	°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_{dss}
I_{gsf}	Forward Gate Current	80mA
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	32W

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.

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