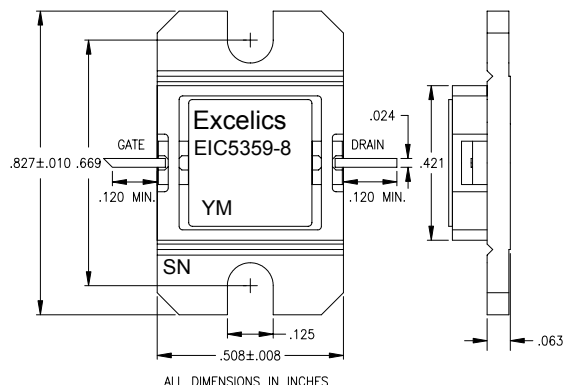




EIC5359-8

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

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

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 $^\circ\text{C}$
T_{stg}	Storage Temperature	-65 to +150 $^\circ\text{C}$
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.