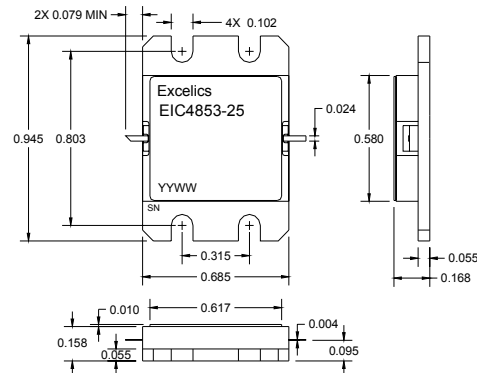


## 4.8-5.30 GHz 25-Watt Internally Matched Power FET

### FEATURES

- 4.80 – 5.30GHz Bandwidth
- Input/Output Impedance Matched to 50 Ohms
- +44.5 dBm Output Power at 1dB Compression
- 9.5 dB Power Gain at 1dB Compression
- 36% Power Added Efficiency
- Hermetic Metal Flange Package
- 100% Tested for DC, RF, and  $R_{TH}$



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



Caution! ESD sensitive device.

SYMBOL	PARAMETERS/TEST CONDITIONS <sup>1</sup>	MIN	TYP	MAX	UNITS
$P_{1dB}$	Output Power at 1dB Compression $f = 4.80\text{-}5.30\text{ GHz}$ $V_{DS} = 10\text{ V}$ , $I_{DSQ} \approx 6500\text{mA}$	43.5	44.5		dBm
$G_{1dB}$	Gain at 1dB Compression $f = 4.80\text{-}5.30\text{ GHz}$ $V_{DS} = 10\text{ V}$ , $I_{DSQ} \approx 6500\text{mA}$	9	10		dB
$\Delta G$	Gain Flatness $f = 4.80\text{-}5.30\text{ GHz}$ $V_{DS} = 10\text{ V}$ , $I_{DSQ} \approx 6500\text{mA}$			$\pm 0.6$	dB
PAE	Power Added Efficiency at 1dB Compression $f = 4.80\text{-}5.30\text{ GHz}$ $V_{DS} = 10\text{ V}$ , $I_{DSQ} \approx 6500\text{mA}$		36		%
$I_{d1dB}$	Drain Current at 1dB Compression $f = 4.80\text{-}5.30\text{ GHz}$		7050	8300	mA
$I_{DSS}$	Saturated Drain Current $V_{DS} = 3\text{ V}$ , $V_{GS} = 0\text{ V}$		11	16	A
$V_P$	Pinch-off Voltage $V_{DS} = 3\text{ V}$ , $I_{DS} = 130\text{ mA}$		-2.5	-4.0	V
$R_{TH}$	Thermal Resistance <sup>2</sup>		1.4	1.8	$^\circ\text{C/W}$

1. Tested with 15 Ohm gate resistor, forward and reverse gate current should not exceed 130mA and -10.5mA respectively

2. Overall  $R_{th}$  depends on case mounting.

### MAXIMUM RATING AT $T_b = 25^\circ\text{C}$ <sup>1,2</sup>

SYMBOLS	PARAMETERS	ABSOLUTE <sup>1</sup>	OPERATING <sup>2</sup>
$V_{ds}$	Drain-Source Voltage	15	10V
$V_{gs}$	Gate-Source Voltage	-5	-4V
$P_{in}$	Input Power	38 dBm	@ 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	83W	83W

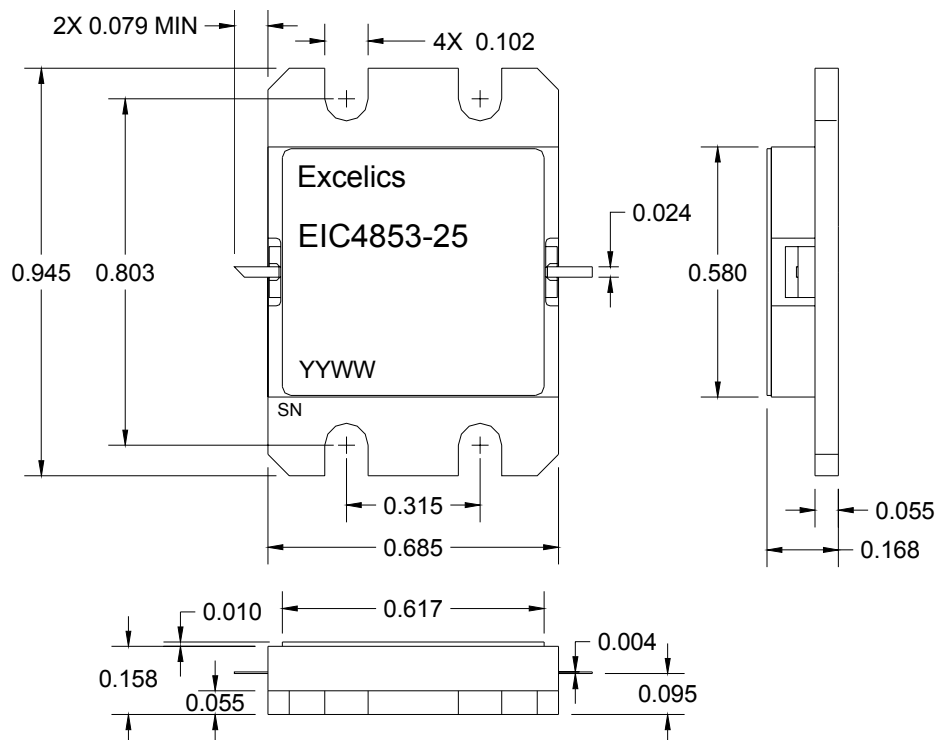
Note: 1. Operating the device beyond the absolute maximum rating may cause permanent damage.

2. Operating beyond the absolute maximum ratings may reduce MTTF of the device.

## 4.8-5.30 GHz 25-Watt Internally Matched Power FET

### PACKAGE OUTLINE

Dimensions in inches, Tolerance  $\pm .005$  unless otherwise specified



### DISCLAIMER

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Specifications are subject to change without notice.

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