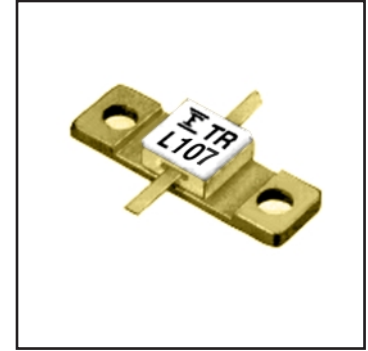


FEATURES

- High Output Power: $P_{1dB}=29.5dBm$ (Typ.)
- High Gain: $G_{1dB}=13.5dB$ (Typ.)
- High PAE: $\eta_{add}=47%$ (Typ.)
- Proven Reliability
- Hermetically Sealed Package



DESCRIPTION

The FLL107ME is a Power GaAs FET that is specifically designed to provide high power at L-Band frequencies with gain, linearity and efficiency superior to that of silicon devices. The performance in multitone environments for Class AB operation make them ideally suited for base station applications. This device is assembled in hermetic metal/ceramic package.

Eudyna stringent Quality Assurance Program assures the highest reliability and consistent performance.

ABSOLUTE MAXIMUM RATING (Ambient Temperature $T_a=25^\circ C$)

Item	Symbol	Condition	Rating	Unit
Drain-Source Voltage	V_{DS}		15	V
Gate-Source Voltage	V_{GS}		-5	V
Total Power Dissipation	P_t	$T_c = 25^\circ C$	4.16	W
Storage Temperature	T_{stg}		-65 to +175	$^\circ C$
Channel Temperature	T_{ch}		175	$^\circ C$

Eudyna recommends the following conditions for the reliable operation of GaAs FETs:

1. The drain-source operating voltage (V_{DS}) should not exceed 10 volts.
2. The forward and reverse gate currents should not exceed 4.8 and -0.5 mA respectively with gate resistance of 400 Ω .
3. The operating channel temperature (T_{ch}) should not exceed 145 $^\circ C$.

ELECTRICAL CHARACTERISTICS (Ambient Temperature $T_a=25^\circ C$)

Item	Symbol	Test Conditions	Limit			Unit
			Min.	Typ.	Max.	
Saturated Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS} = 0V$	-	300	450	mA
Transconductance	g_m	$V_{DS} = 5V, I_{DS} = 200mA$	-	150	-	mS
Pinch-off Voltage	V_p	$V_{DS} = 5V, I_{DS} = 15mA$	-1.0	-2.0	-3.5	V
Gate Source Breakdown Voltage	V_{GSO}	$I_{GS} = -15\mu A$	-5	-	-	V
Output Power at 1dB G.C.P.	P_{1dB}	$V_{DS} = 10V$ $I_{DS} \approx 0.6I_{DSS}$ (Typ.), $f = 2.3GHz$	28.5	29.5	-	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		12.5	13.5	-	dB
Power-added Efficiency	η_{add}		-	47	-	%
Thermal Resistance	R_{th}	Channel to Case	-	25	36	$^\circ C/W$

CASE STYLE: ME

G.C.P.: Gain Compression Point

