

< C band internally matched power GaAs FET >

MGFC47B3436B

3.4 – 3.6 GHz BAND / 50W

DESCRIPTION

The MGFC47B3436B is an internally impedance-matched GaAs power FET especially designed for use in 3.4 – 3.6 GHz band amplifiers. The hermetically sealed metal-ceramic package guarantees high reliability.

FEATURES

- Class AB operation
- Internally matched to 50(ohm) system
- High output power
Po(SAT)=50W (TYP.) @f=3.4 – 3.6GHz
- High power gain
GLP=10.5dB (TYP.) @f=3.4 – 3.6GHz
- Low distortion
EVM=1.5% (TYP.) @f=3.4 – 3.6GHz, Po=37dBm

RECOMMENDED BIAS CONDITIONS

- VDS=12V • ID=1.5A • RG=10ohm

Absolute maximum ratings (Ta=25°C)

Symbol	Parameter	Ratings	Unit
VGDO	Gate to drain breakdown voltage	-15	V
VGSO	Gate to source breakdown voltage	-10	V
MAX ID	Maximum drain current	12	A
PT *1	Total power dissipation	115	W
Tch	Channel temperature	175	°C
Tstg	Storage temperature	-65 to +175	°C

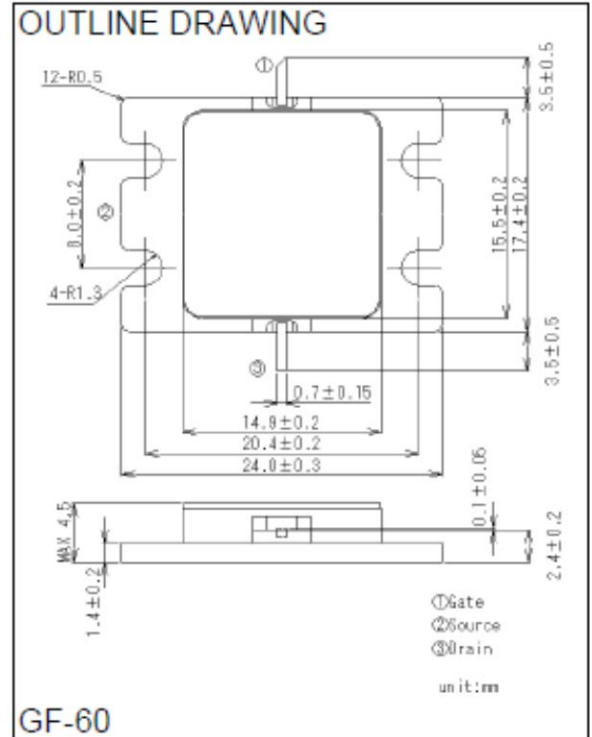
*1 : Tc=25°C

Electrical characteristics (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
VGS(off)	Gate to source cut-off voltage	VDS=3V, ID=100mA	-0.5	-	-3.0	V
Po(SAT)	Output power	VDS=12V, ID(RF off)=1.5A	-	47	-	dBm
GLP	Linear Power Gain	f=3.4 – 3.6GHz, Pout=37dBm	9	10.5	-	dB
ID	Drain current		-	2	3	A
EVM *2	Error vector Magnitude		-	1.5	2.5	%
Rth(ch-c) *3	Thermal resistance	Delta Vf method	-	0.65	1.2	°C/W

*2 : WiMAX Downlink, 64QAM-3/4, Channel Bandwidth:6MHz

*3 : Channel-case



Keep Safety first in your circuit designs!

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