

< C band internally matched power GaAs FET >

# MGFC45B3436B

3.4 – 3.6 GHz BAND / 30W

## DESCRIPTION

The MGFC45B3436B 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)=30W (TYP.) @f=3.4 – 3.6GHz
- High power gain  
GLP=11dB (TYP.) @f=3.4 – 3.6GHz
- Low distortion  
ACP=-45dBc (TYP.) @f=3.4 – 3.6GHz, Po=34dBm

## RECOMMENDED BIAS CONDITIONS

- VDS=12V • ID=0.8A • RG=12ohm

## 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	10	A
PT *1	Total power dissipation	78	W
Tch	Channel temperature	175	°C
Tstg	Storage temperature	-65 to +175	°C

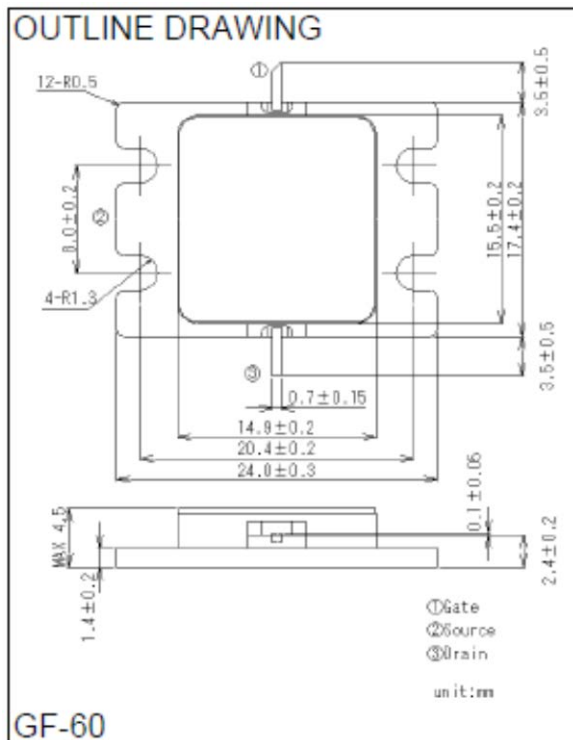
\*1 : Tc=25°C

## 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)=0.8A	-	45	-	dBm
GLP	Linear Power Gain	f=3.4 – 3.6GHz, Pout=34dBm	10	11	-	dB
ID	Drain current		-	1.2	1.5	A
ACP *2	Adjacent Channel leakage Power		-41	-45	-	dBc
Rth(ch-c) *3	Thermal resistance	Delta Vf method	-	-	1.9	°C/W

\*2 :Mod. 3GPP TEST MODEL 1 64code Signal

\*3 :Channel-case



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