

Preliminary

MITSUBISHI SEMICONDUCTOR<GaAs FET>

MGF0915A

L & S BAND GaAs FET [SMD non - matched]

DESCRIPTION

The MGF0915A GaAs FET with an N-channel schottky Gate, is designed for use UHF band amplifiers.

FEATURES

- High output power
Po=36 dBm(TYP.) @f=1.9GHz,Pin=26dBm
- High power gain
Gp=14.5 dB(TYP.) @f=1.9GHz
- High power added efficiency
ηadd=50 %(TYP.) @f=1.9GHz,Pin=26dBm
- Hermetic Package

APPLICATION

- For UHF Band power amplifiers

QUALITY

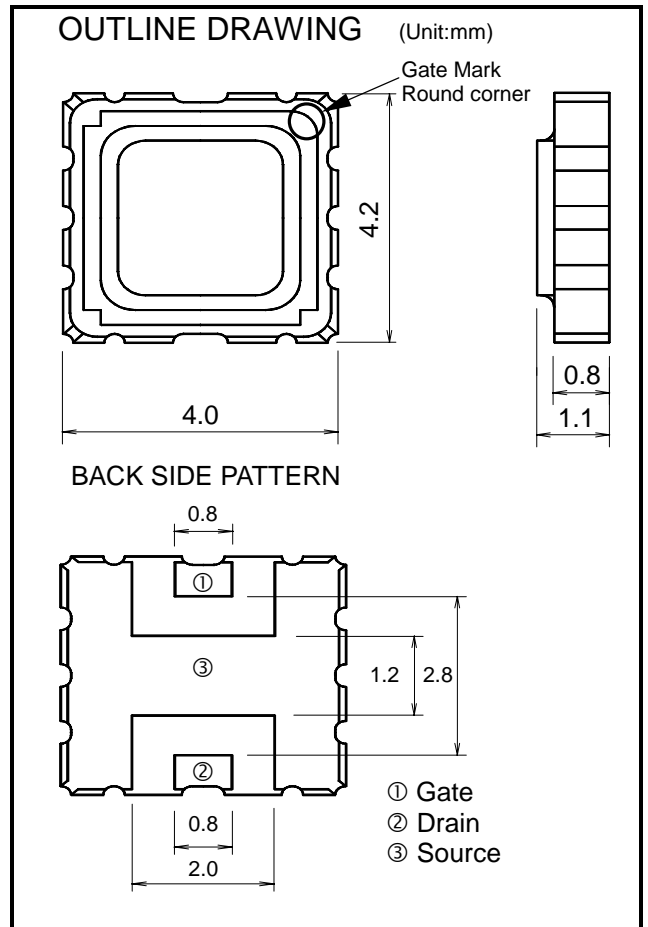
- GG

RECOMMENDED BIAS CONDITIONS

- Vds=10V
- Ids=TBD mA
- Rg=100Ω

Absolute maximum ratings

Symbol	Parameter	Ratings	Unit
VGSO	Gate to sourcebreakdown voltage	-15	V
VGDO	Gate to drain breakdown voltage	-15	V
ID	Drain current	3000	mA
IGR	Reverse gate current	-10	mA
IGF	Forward gate current	21	mA
PT	Total power dissipation	12	W
Tch	Cannel temperature	175	°C
Tstg	Storage temperature	-65 to +175	°C



Electrical characteristics

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IDSS	Saturated drain current	VDS=3V,VGS=0V	-	2400	3000	mA
VGS(off)	Gate to source cut-off voltage	VDS=3V,ID=10mA	-1	-3	-5	V
gm	Transconductance	VDS=3V,ID=800mA	-	1000	-	mS
Po	Output power	VDS=10V,ID=800mA,f=1.9GHz	-	36.5	-	dBm
ηadd	Power added Efficiency	Pin=25dBm	-	50	-	%
GLP	Linear Power Gain	VDS=10V,ID=800mA,f=1.9GHz	-	14.5	-	dB
NF	Noise figure		-	2.6	-	dB
Rth(ch-c)	Thermal Resistance *1	ΔVf Method	-	-	TBD	°C/W

*1:Channel to case / Above parameters, ratings, limits are subject to change.

MGF0915A TYPICAL CHARACTERISTICS

