MGF0909A

L & S BAND GaAs FET [non – matched]

DESCRIPTION

The MGF0909A GaAs FET with an N-channel schottky Gate, is designed for use L/S band amplifiers.

FEATURES

- High output power
  P1dB=38.0dBm(TYP.) @f=2.3GHz
- High power gain
  GLp=11.0dB(TYP.) @f=2.3GHz
- High power added efficiency
  ηadd=45%(TYP.) @f=2.3GHz,P1dB
- Hermetic Package

APPLICATION

- For L/S Band power amplifiers

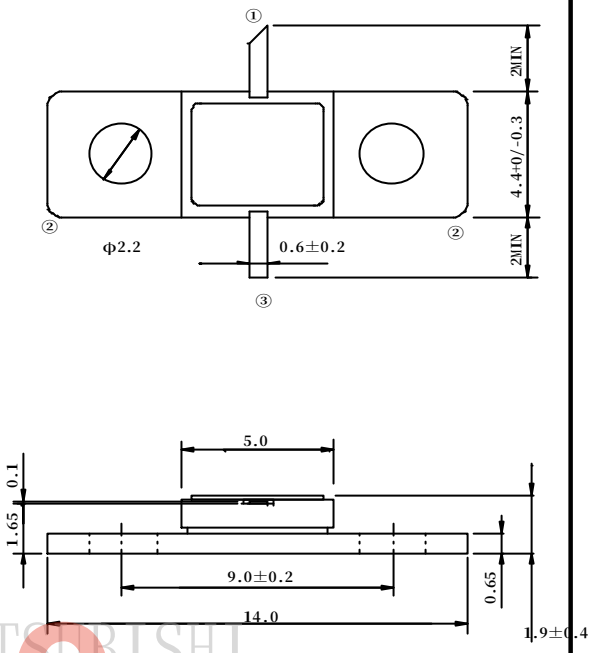
QUALITY

- GG

RECOMMENDED BIAS CONDITIONS

- Vds=10V
- Ids=1.3A
- Rg=100Ω

OUTLINE DRAWING Unit : millimeters



GF-7

(1) GATE
(2) SOURCE (FLANGE)
(3) DRAIN

Absolute maximum ratings (Ta=25°C)

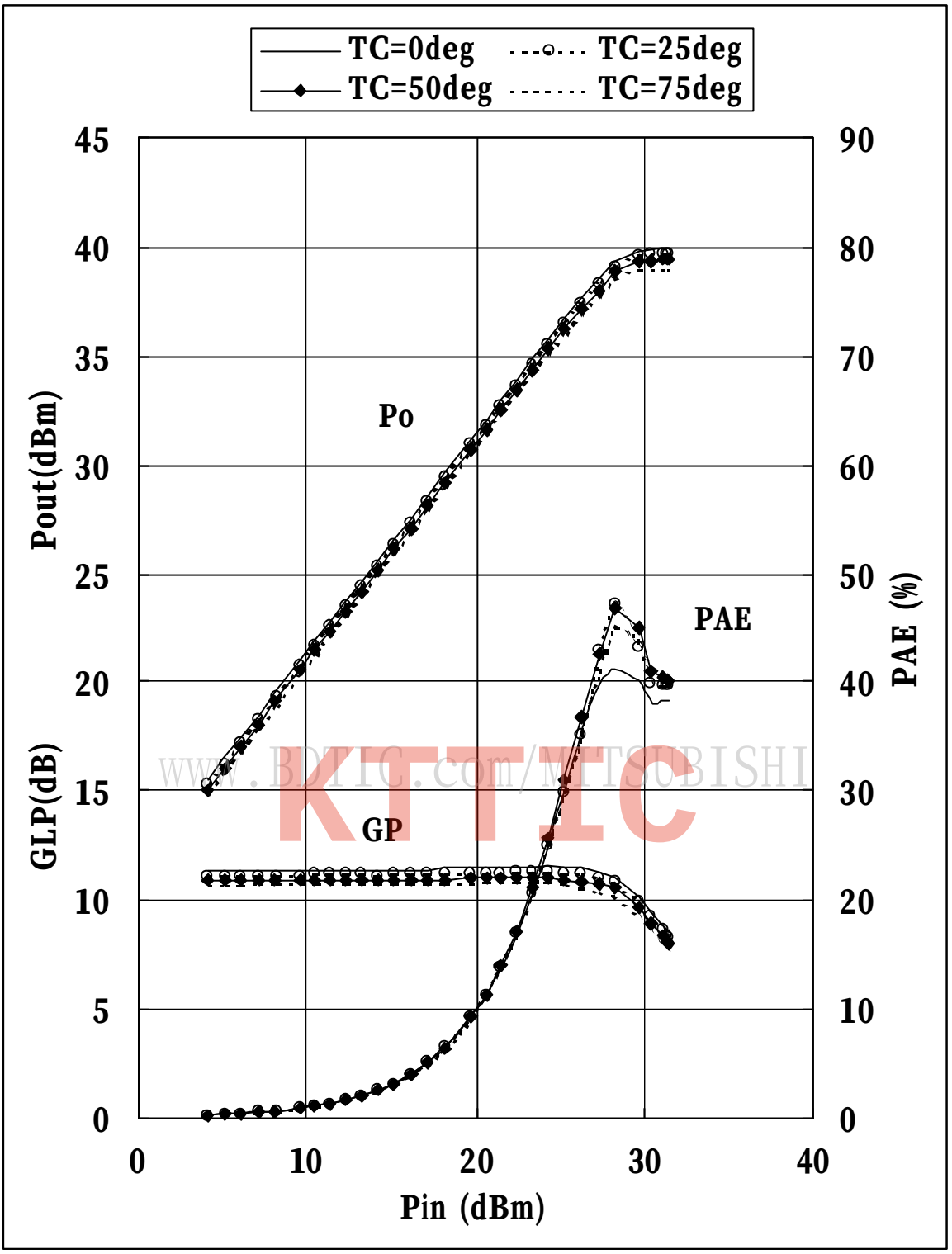
Symbol	Parameter	Ratings	Unit
VGSO	Gate to source breakdown voltage	-15	V
VGDO	Gate to drain breakdown voltage	-15	V
ID	Drain current	5	A
IGR	Reverse gate current	-15	mA
IGF	Forward gate current	31.5	mA
PT	Total power dissipation	27.3	W
Tch	Cannel temperature	175	°C
Tstg	Storage temperature	-65 to +175	°C

Electrical characteristics (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IDSS	Saturated drain current	VDS=3V,VGS=0V	-	--	5.0	A
VGS(off)	Gate to source cut-off voltage	VDS=3V,ID=10mA	-2.0	-	-5.0	V
gm	Transconductance	VDS=3V,ID=1.3A	-	1.5	-	S
P1dB	Output power 1dB Compression P	VDS=10V,ID=1.3A,f=2.3GHz	37.0	38.0	-	dBm
ηadd	Power added Efficiency *1	*1:Po=P1dB	-	45	-	%
GLP	Linear Power Gain *2	*2:Pi=22dBm	10.0	11.0	-	dB
Rth(ch-c)	Thermal Resistance *1	ΔVf Method	-	-	9	°C/W

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

MGF0909A TYPICAL CHARACTERISTICS Tc=0/25/50/75deg.C



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