

**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  
 $\eta_{add}$ =45%(TYP.) @f=2.3GHz,P1dB
- Hermetic Package

**APPLICATION**

- For L/S Band power amplifiers

**QUALITY**

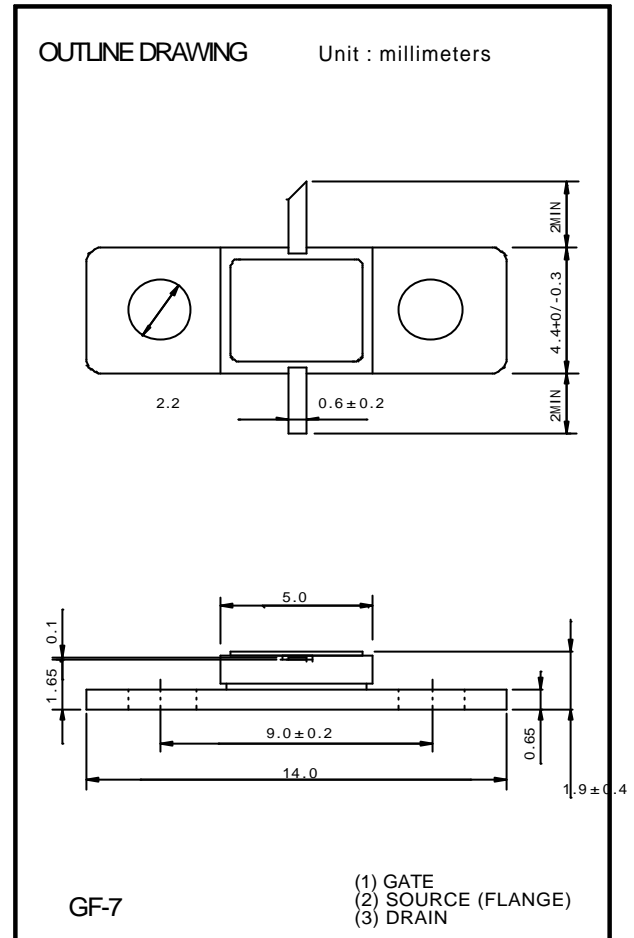
- GG

**RECOMMENDED BIAS CONDITIONS**

- Vds=10V • Ids=1.3A • Rg=100 $\Omega$

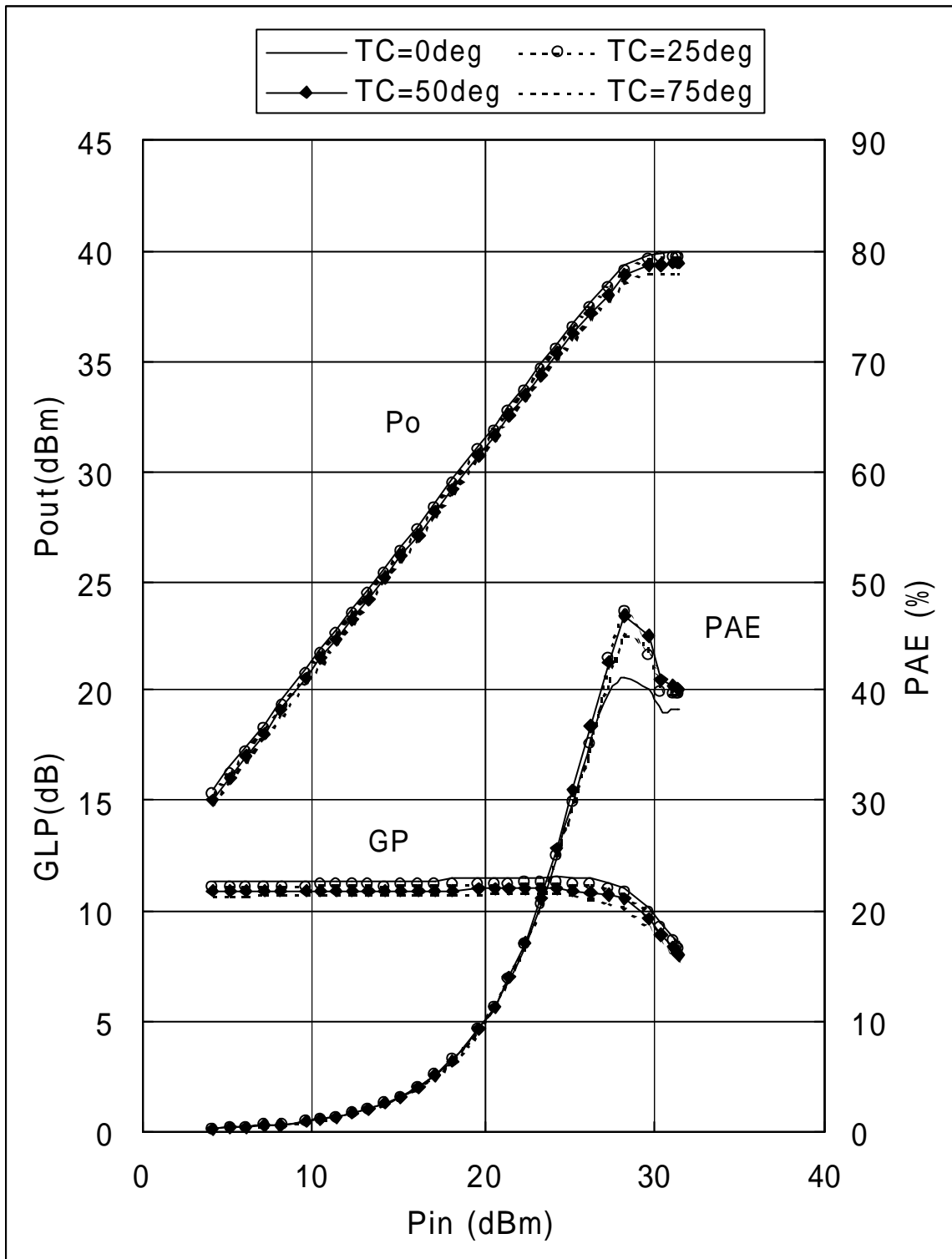
**Absolute maximum ratings** (Ta=25°C)

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	Channel 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
$\eta_{add}$	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	$\Delta V_f$ Method	-	-	9	°C/W

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



**L & S BAND GaAs FET [ non – matched ]****Requests Regarding Safety Designs**

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