

MITSUBISHI SEMICONDUCTOR <GaAs FET>

# MGFS48B2122

2.11 - 2.17 GHz BAND 60W GaAs FET

## DESCRIPTION

The MGFS48B2122 is a 60W push-pull type GaAs Power FET especially designed for use in 2.11 - 2.17GHz band amplifiers. The hermetically sealed metal-ceramic package guarantees high reliability.

## FEATURES

- Push-pull configuration
- High output power  
Pout = 60W (TYP.) @ f=2.17 GHz
- High power gain  
GLP = 12 dB (TYP.) @ f=2.17GHz
- High power added efficiency  
P.A.E. = 48 % (TYP.) @ f=2.17GHz

## APPLICATION

2.11-2.17GHz band power amplifier for W-CDMA Base Station

## QUALITY GRADE

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## RECOMMENDED BIAS CONDITIONS

VDS = 12 (V)  
ID = 2.0 (A)  
RG=20 (ohm) for each gate

## ABSOLUTE MAXIMUM RATINGS (Ta=25deg.C)

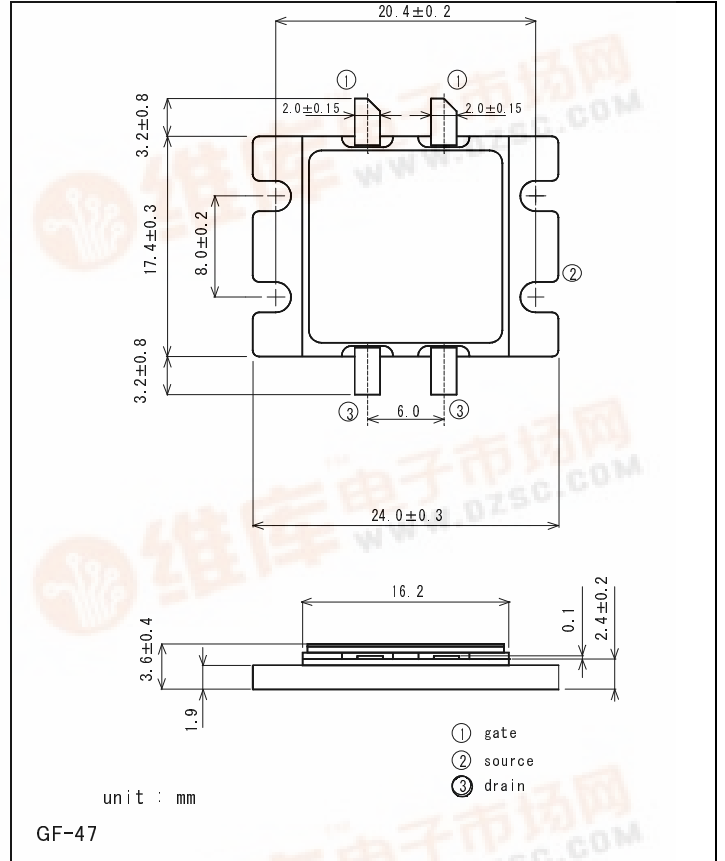
Symbol	Parameter	Ratings	Unit
VGDO	Gate to drain voltage	-20	V
VGSO	Gate to source voltage	-10	V
PT *1	Total power dissipation	125	W
Tch	Channel temperature	175	deg.C
Tstg	Storage temperature	-65 / +175	deg.C

\*1 : Tc=25deg.C

## ELECTRICAL CHARACTERISTICS (Ta=25deg.C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
GLP	Linear power gain	Pin=22dBm	11	12	-	dB
Pout	Output power	Pin=39dBm	VDS=12V, ID(RF off)=2.0A	f=2.17GHz	-	dBm
ID(RF)	Drain current					
P.A.E.	Power added efficiency					%
Rth (ch-c)	Thermal resistance	Channel to Case	-	1	1.2	deg.C/W

## OUTLINE



< Keep safety first in your circuit designs! >

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**MGFS48B2122****2.11 - 2.17 GHz BAND 60W GaAs FET****Requests Regarding Safety Designs**

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