

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

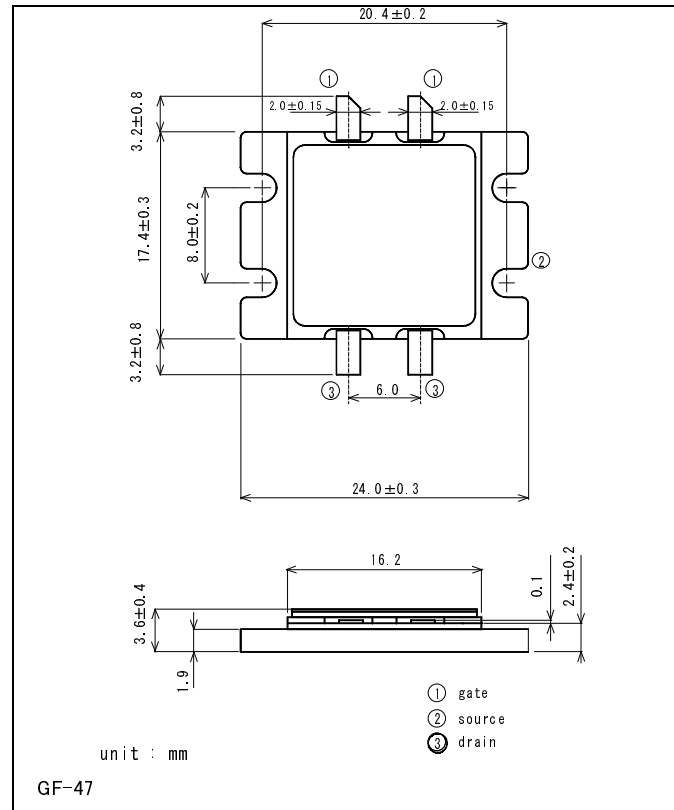
QUALITY GRADE

IG

RECOMMENDED BIAS CONDITIONS

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

OUTLINE



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

< Keep safety first in your circuit designs! >

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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 | VDS=12V, ID(RF off)=2.0A f=2.17GHz | 47 | 48 | - | dBm |
| ID(RF) | Drain current | | - | 11 | 15 | A |
| P.A.E. | Power added efficiency | | - | 48 | - | % |
| Rth (ch-c) | Thermal resistance | | Channel to Case | - | 1 | 1.2 |

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