

Internally Matched Power GaAs FETs (X, Ku-Band)**Features**

- High power
 - $P_{1\text{dB}} = 33.5 \text{ dBm}$ at 14.5 GHz to 15.0 GHz
- High gain
 - $G_{1\text{dB}} = 6.0 \text{ dB}$ at 14.5 GHz to 15.0 GHz
- Broad Band Internally Matched
- Hermetically sealed package

RF Performance Specifications ($T_a = 25^\circ \text{ C}$)

Characteristics	Symbol	Condition	Unit	Min.	Typ.	Max
Output Power at 1dB Compression Point	$P_{1\text{dB}}$	$V_{DS} = 9V$ $f = 14.5 \sim 15.0 \text{ GHz}$	dBm	32.5	33.5	-
Power Gain at 1dB Compression Point	$G_{1\text{dB}}$		dB	5.0	6.0	-
Drain Current	I_{DS}		A	-	0.85	1.1
Power Added Efficiency	η_{add}		%	-	22	-
Channel-Temperature Rise	ΔT_{ch}	$V_{DS} \times I_{DS} \times R_{th(\text{c-c})}$	°C	-	-	60

Electrical Characteristics ($T_a = 25^\circ \text{ C}$)

Characteristic	Symbol	Condition	Unit	Min.	Typ.	Max
Trans-conductance	gm	$V_{DS}=3V$ $I_{DS}=1.0 \text{ A}$	mS	-	600	-
Pinch-off Voltage	$V_{GS\text{off}}$	$V_{DS}=3V$ $I_{DS}=30\text{mA}$	V	-2	-3.5	-5
Saturated Drain Current	I_{DSS}	$V_{DS}=3V$ $V_{GS}=0V$	A	-	2.0	2.6
Gate to Source Breakdown Voltage	V_{GSO}	$I_{GS}=-30 \mu\text{A}$	V	-5	-	-
Thermal Resistance	$R_{th} (\text{c-c})$	Channel to case	°C/W	-	5	6

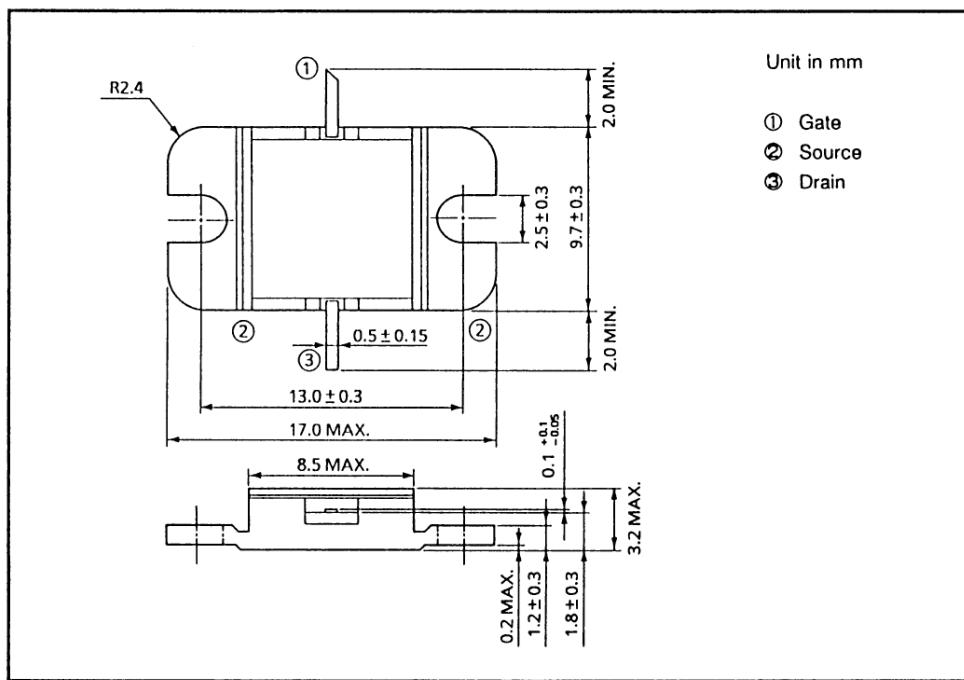
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Absolute Maximum Ratings ($T_a = 25^\circ C$)

Characteristic	Symbol	Unit	Rating
Drain Source Voltage	V_{DS}	V	15
Gate Source Voltage	V_{GS}	V	-5
Drain Current	I_{DS}	A	2.6
Total Power Dissipation ($T_c = 25^\circ C$)	P_T	W	15
Channel Temperature	T_{ch}	$^\circ C$	175
Storage Temperature	T_{stg}	$^\circ C$	-65~175

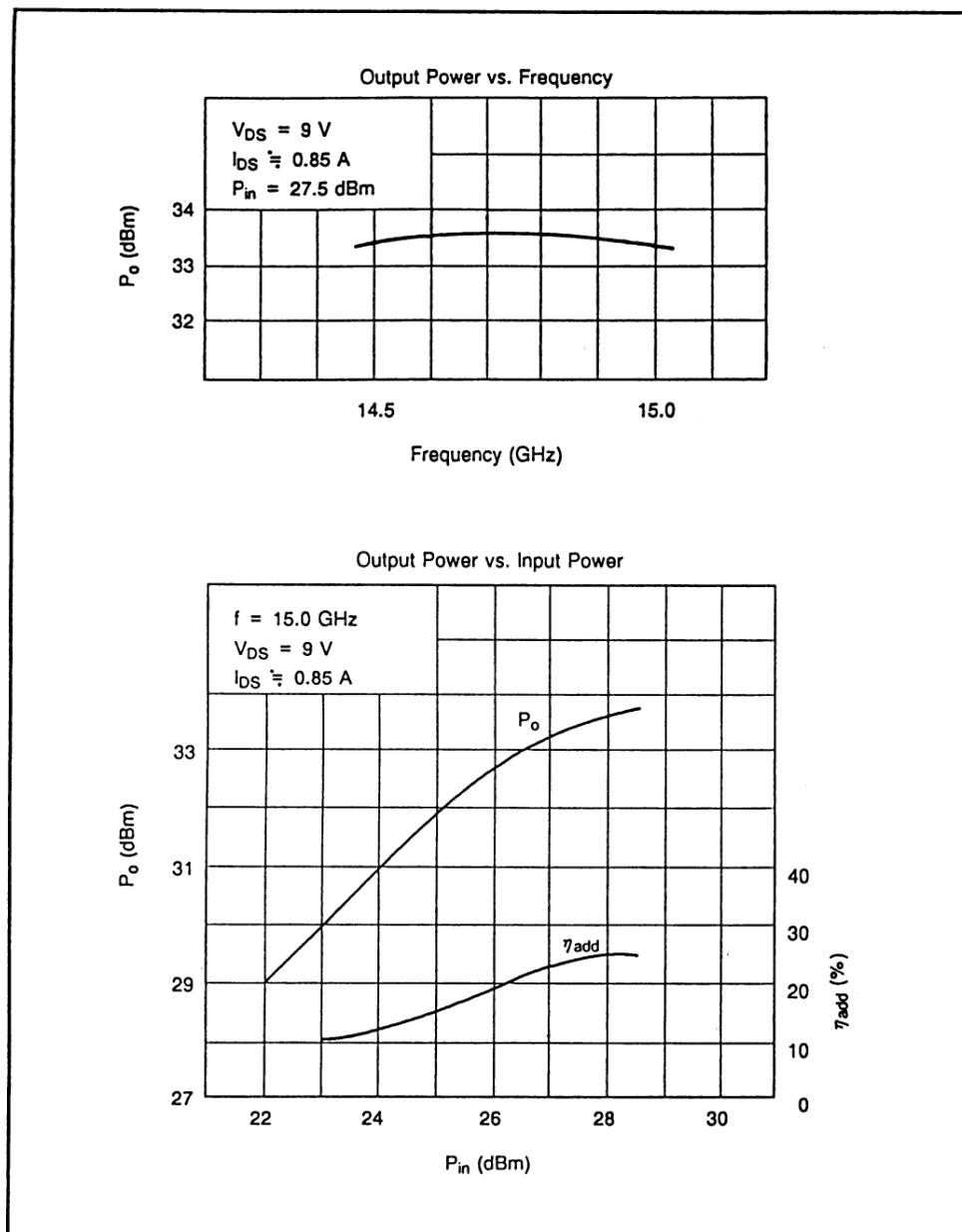
Package Outline (2-9D1B)



Handling Precautions for Packaged Type

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF Performances



Power Dissipation vs. Case Temperature

