

FEATURES :

- HIGH POWER
P_{1dB} = 37.5 dBm at 13.75 GHz to 14.5 GHz
- BROAD BAND INTERNALLY MATCHED
- HIGH GAIN
G_{1dB} = 5.5 dB at 13.75 GHz to 14.5 GHz
- HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P _{1dB}	V _{DS} = 9 V f = 13.75 ~ 14.5 GHz	dBm	37.0	37.5	—
Power Gain at 1dB Compression Point	G _{1dB}		dB	4.5	5.5	—
Drain Current	I _{DS}		A	—	2.0	2.5
Power Added Efficiency	η _{add}		%	—	22	—
Channel-Temperature Rise	ΔT _{Ch}	V _{DS} × I _{DS} × R _{th(c-c)}	°C	—	—	80

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	V _{DS} = 3 V I _{DS} = 2.4 A	mS	—	1400	—
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3 V I _{DS} = 72 mA	V	-2.0	-3.5	-5.0
Saturated Drain Current	I _{DSS}	V _{DS} = 3 V V _{GS} = 0 V	A	—	5.0	5.7
Gate-Source Breakdown Voltage	V _{GS0}	I _{GS} = -72 μA	V	-5	—	—
Thermal Resistance	R _{th(c-c)}	Channel to Case	°C/W	—	3.0	3.7

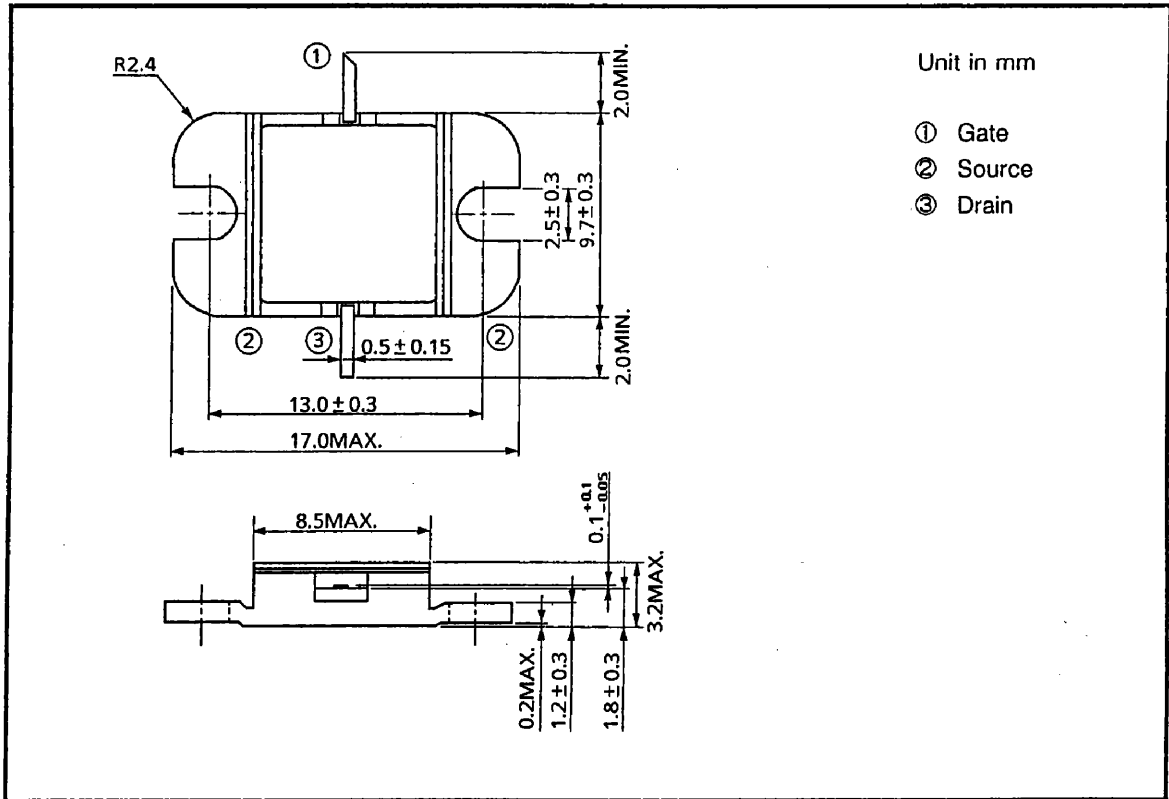
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ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V _{DS}	V	15
Gate-Source Voltage	V _{GS}	V	-5
Drain Current	I _{DS}	A	5.7
Total Power Dissipation (T _C = 25°C)	P _T	W	30
Channel Temperature	T _{ch}	°C	175
Storage Temperature	T _{stg}	°C	-65~175

PACKAGE OUTLINE (2-9D1B)

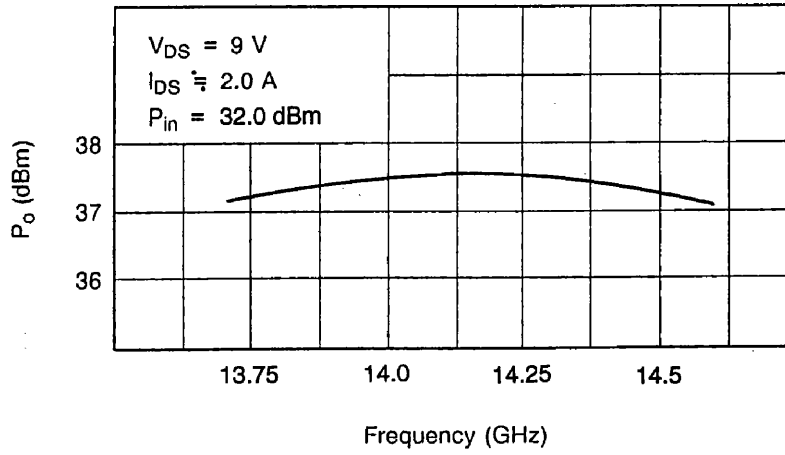


HANDLING PRECAUTIONS FOR PACKAGED TYPE

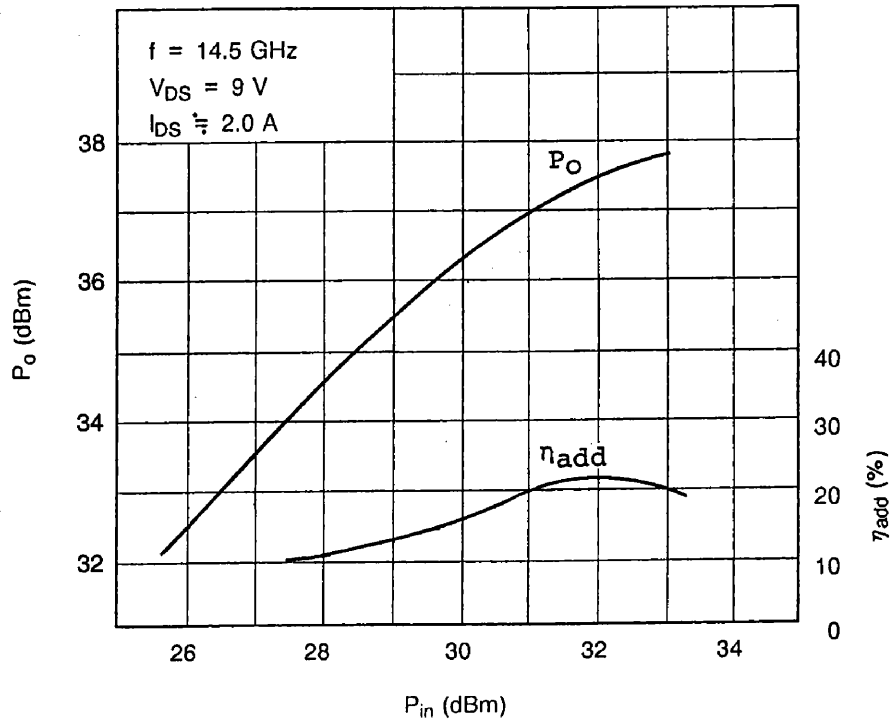
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCES

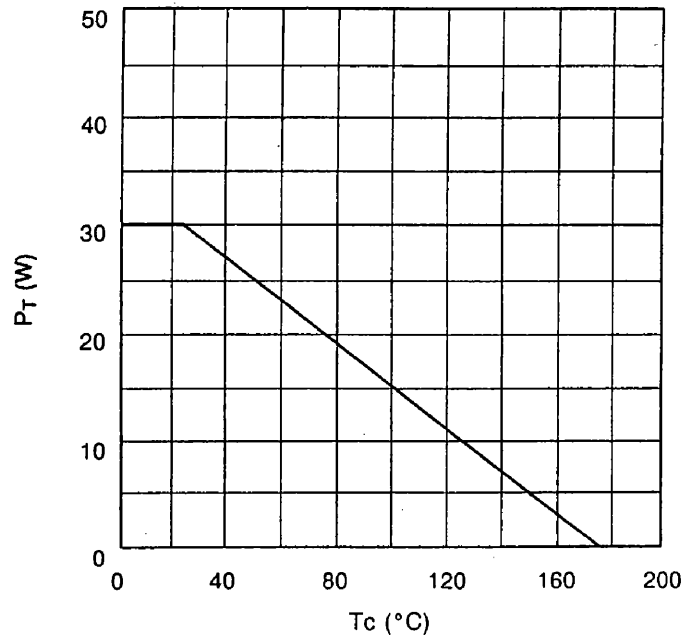
Output Power vs. Frequency



Output Power vs. Input Power



POWER DISSIPATION VS. CASE TEMPERATURE



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