

HMC441LP3 / 441LP3E

v05.0812



GaAs pHEMT MMIC MEDIUM POWER AMPLIFIER, 6.5 - 13.5 GHz

Absolute Maximum Ratings

Drain Bias Voltage (Vdd)	+6 Vdc	
Gate Bias Voltage (Vgg1,Vgg2)	-8 to 0 Vdc +15 dBm	
RF Input Power (RFIN)(Vdd = +5 Vdc)		
Channel Temperature	175 °C	
Continuous Pdiss (T = 85 °C) (derate 8.5 mW/°C above 85 °C)	0.76 W	
Thermal Resistance (channel to ground paddle)	118.2 °C/W -65 to +150 °C -40 to +85 °C	
Storage Temperature		
Operating Temperature		

Typical Supply Current vs. Vdd

Vdd (V)	Idd (mA)	
+5.5	92	
+5.0	90	
+4.5	88	
+3.3	83	
+3.0	82	

Note: Amplifier will operate over full voltage range shown above



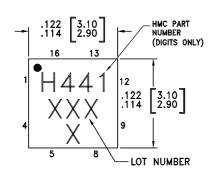
BOTTOM VIEW

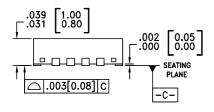
ELECTROSTATIC SENSITIVE DEVICE OBSERVE HANDLING PRECAUTIONS

EXPOSED GROUND PADDLE

MUST BE CONNECTED TO RF/DC GROUND

Outline Drawing





NOTES:

1. LEADFRAME MATERIAL: COPPER ALLOY

2. DIMENSIONS ARE IN INCHES [MILLIMETERS]

3. LEAD SPACING TOLERANCE IS NON-CUMULATIVE

4. PAD BURR LENGTH SHALL BE 0.15mm MAXIMUM. PAD BURR HEIGHT SHALL BE 0.05mm MAXIMUM.

5. PACKAGE WARP SHALL NOT EXCEED 0.05mm.

6. ALL GROUND LEADS AND GROUND PADDLE MUST BE SOLDERED TO PCB RF GROUND.

7. REFER TO HITTITE APPLICATION NOTE FOR SUGGESTED LAND PATTERN.

Package Information

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Part Number	Package Body Material	Lead Finish	MSL Rating	Package Marking ^[3]
HMC441LP3	Low Stress Injection Molded Plastic	Sn/Pb Solder	MSL1 [1]	441 XXXX
HMC441LP3E	RoHS-compliant Low Stress Injection Molded Plastic	100% matte Sn	MSL1 [2]	441 XXXX

SQUARE

- [1] Max peak reflow temperature of 235 °C
- [2] Max peak reflow temperature of 260 °C
- [3] 4-Digit lot number XXXX

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