GaAs Monolithic Microwave IC in SMD leadless package iption

Description

The monolithic microwave IC (MMIC) in the package is а variable DC-40GHz attenuator. It is designed for a wide range of applications, from military to commercial communication systems.

The circuit is manufactured with a MESFET process, 0.7µm gate length, via holes through the substrate and air bridges.

It is supplied in a new SMD leadless chip carrier.

■ Broad band performance: DC-40GHz

■ Minimum attenuation [S21]: 4dB

(VS = 0V; VP = -5V)

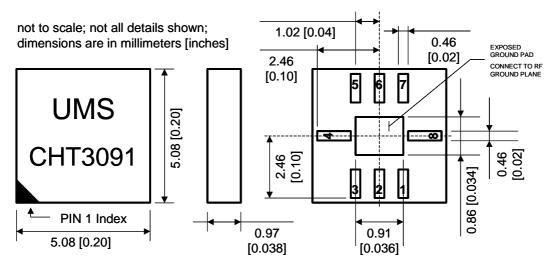
■ Maximum attenuation [S21]: 20dB (VS = -5V; VP = 0V)

■ Minimum input 1dB compression point (P-1dB): 14dBm

■ SMD leadless package

■ Dimensions: 5.08 x 5.08 x 0.97 mm³

SMD Package Dimensions



| PIN | Function | PIN | Function | | |
|-----|----------|-----|----------|--|--|
| 1 | Vs | 5 | NC | | |
| 2 | NC | 6 | NC | | |
| 3 | Vp | 7 | NC | | |
| 4 | RF out | 8 | RF in | | |

Please note that PIN 1 is located in the lower left corner of the package (front-side view) for all SMD-type packages from United Monolithic Semiconductors. It is indicated by a triangle on the package lid. Starting with PIN 1 the other pads are numbered counter-clockwise (front-side view). ATTENTION: The dot on the backside of the package (i.e. side with metallic pads) is just for fabrication purposes and does NOT indicate the location of PIN

Ref.: DSCHT3091RCF1257 - 14-Sept-01-

Specifications subject to change without notice

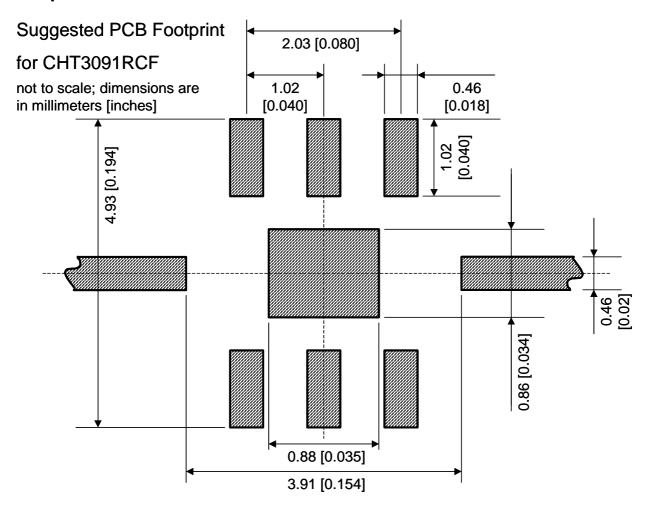
Typical Bias Conditions

for an ambient Temperature of +25°C

| Symbol | Pin No. | Parameter | Values | Unit |
|--------|---------|--------------------|---------|------|
| Vs | 1 | VS control voltage | -5 to 0 | V |
| Vp | 3 | VP control voltage | 0 to -5 | V |

All other pins are not used for this device.

Footprint



SMD mounting procedure

The SMD leadless package has been designed for high volume surface mount PCB assembly process. The dimensions and footprint required for the PCB (motherboard) are given in the drawings above.

For the mounting process standard techniques involving solder paste and a suitable reflow process can be used.

2/3

For further details, see application note AN0005.

Ref.: DSCHT3091RCF1257 - 14-Sept-01-

Specifications subject to change without notice



Ordering Information

SMD leadless package form: CHT3091RCF/24

Information furnished is believed to be accurate and reliable. However **United Monolithic Semiconductors S.A.S.** assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of **United Monolithic Semiconductors S.A.S.**. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. **United Monolithic Semiconductors S.A.S.** products are not authorised for use as critical components in life support devices or systems without express written approval from **United Monolithic Semiconductors S.A.S.**

Ref.: DSCHT3091RCF1257 - 14-Sept-01- 3/3 Specifications subject to change without notice

