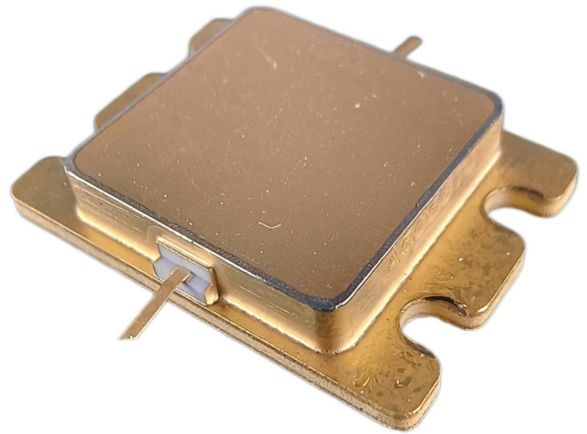


### Key Features

- Operating Frequency: 5.80~6.70 GHz
- $P_{1dB} \geq 41$  dBm
- Power Gain( $G_p$ ):  $\geq 10.0$ dB
- Efficiency ( $\eta$ ):  $\geq 38\%$
- Port Matching:  $Z_{in}/Z_{out} = 50 \Omega$



### Product Description

The MCCI5867-P41-1 is a internal matching GaAs device, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 5.80~6.70GHz. This device can be used in different RF/Microwave system and subsystem. The high output power, high efficiency and wide temperature range can make application very flexible.

### Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

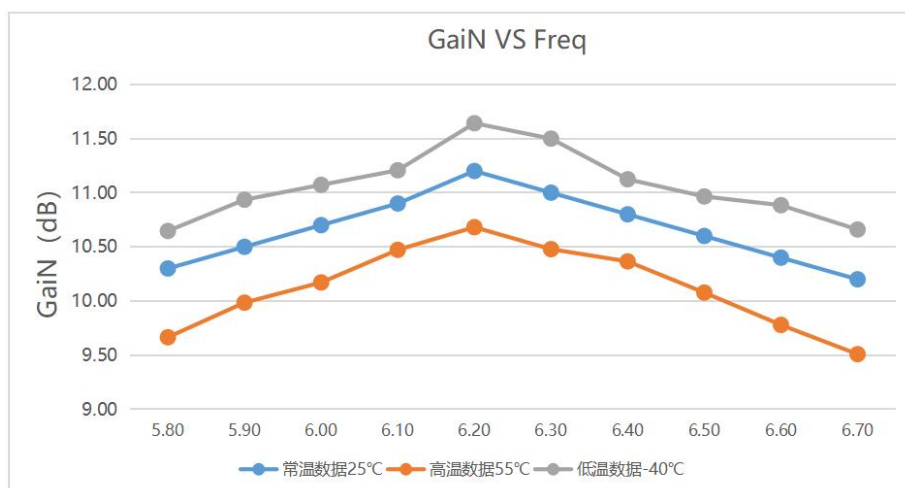
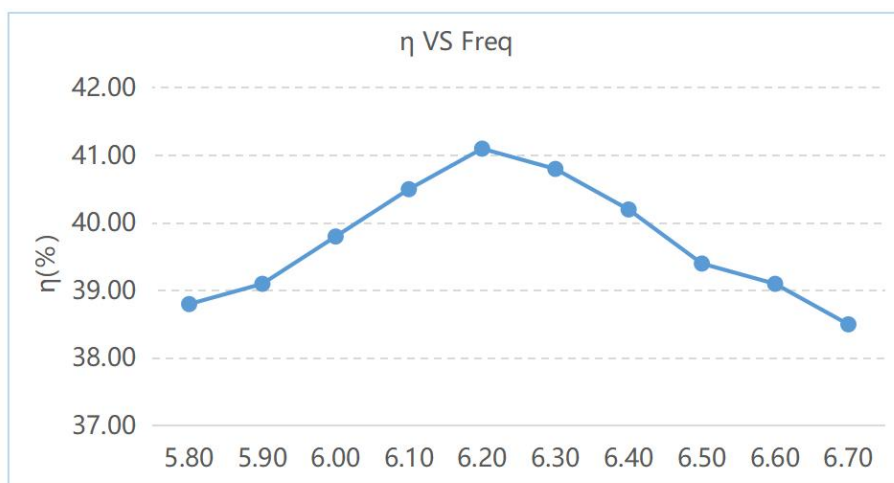
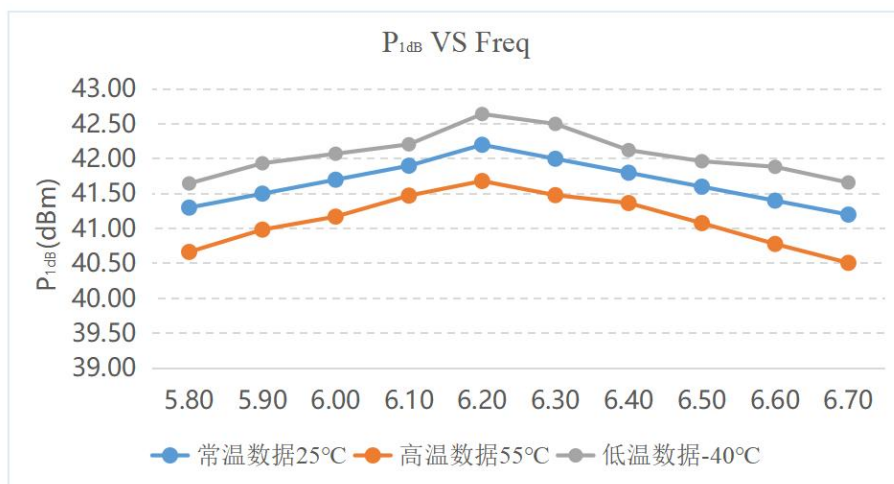
Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	11	V
Gate-Source Voltage	$V_{GS}$	-5	V
Storage Temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$

**\*Not recommended to work under these conditions.**

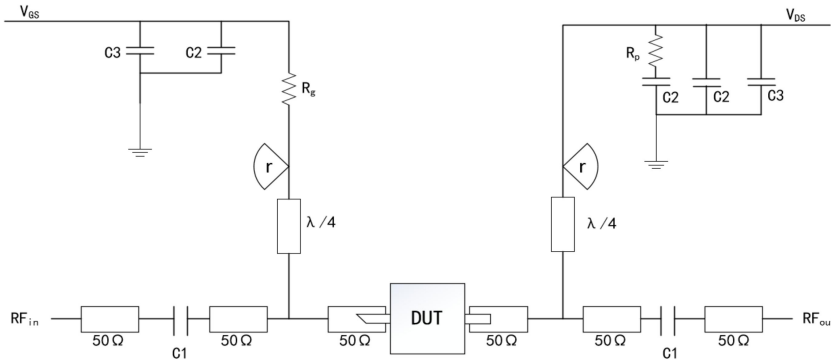
### Microwave Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain Current	$I_{dsr}$	$V_{DS}: 10V$ CW $P_{in}: 31dBm$ Freq: 5.8~6.7GHz	-	3.3	-	A
Output Power at 1dB	$P_{1dB}$		41	-	-	dBm
Power Gain	$G_p$		10	-	-	dB
Work Efficiency	$\eta$		38	-	-	%
Gain Flatness	$\Delta G$		-0.8	-	0.8	dB

## Typical Curves



### Recommended Application Circuit



#### DUT: Device Under Test

C1:3pF                      Rp:51Ω

C2:1000pF                Rg:15Ω

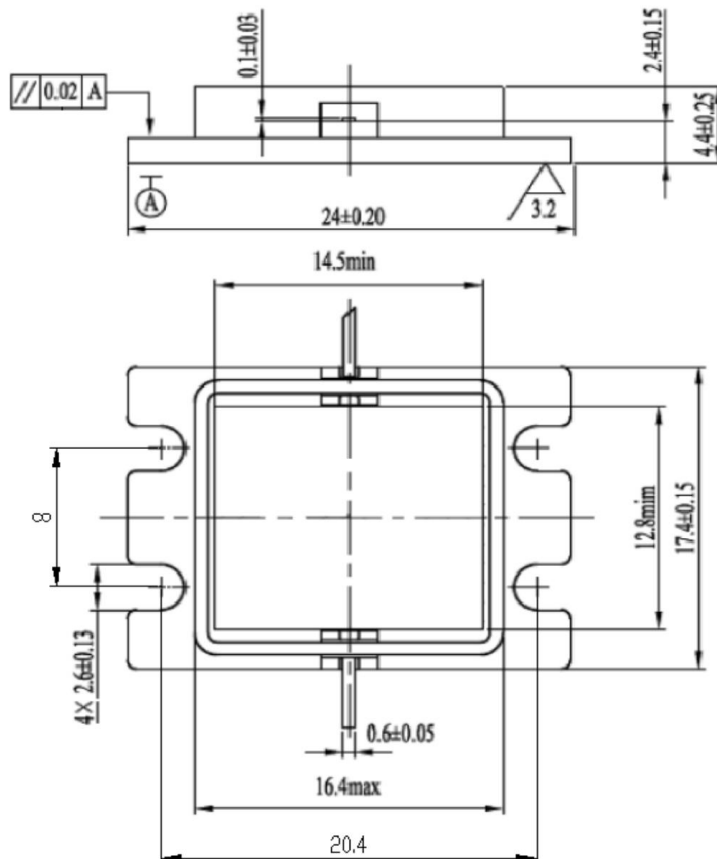
C3:100uF

Radius ≈ 4.5mm (Rogers 5880, 20 mil)

### ESD Level

ESD	Class III	2000V
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### Overall Dimensions



#### Using Notes:

- During transportation and storage, ensure proper drying.
- During the use and assembly of the chip, take precautions against static electricity. Wear a grounded anti-static wristband.
- When powering on, apply gate voltage first, then apply leakage voltage.