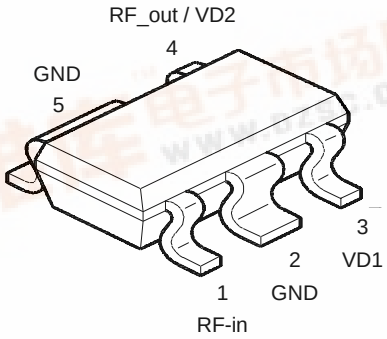
SIEMENS **GaAs MMIC** **CGY 195**

Tentative Data

- Power amplifier for DECT application,
- single voltage supply
- Operating voltage range: 2.7 to 6 V
- Pout = 26dBm at Vd=3.3V
- Overall power added efficiency 44 %

ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precautions!



Type	Marking	Ordering code (taped)	Package 1)
CGY 195	t.b.d.	t.b.d.	MW 5

Maximum ratings

Characteristics	Symbol	max. Value	Unit
Positive supply voltage	V_D	8	V
Supply current	I_D	t.b.d.	A
Maximum input power	*Pinmax*	t.b.d.	dBm
Channel temperature	T_{Ch}	150	°C
Storage temperature	T_{stg}	-55...+150	°C
Total power dissipation *(Ts ≤ 81 °C)* *Ts: Temperature at soldering point*	P_{tot}	t.b.d.	W
Pulse peak power	P_{Pulse}	t.b.d.	W

Thermal Resistance

Channel-soldering point	R_{thChS}	t.b.d.	K/W

1) Plastic body identical to MW-6

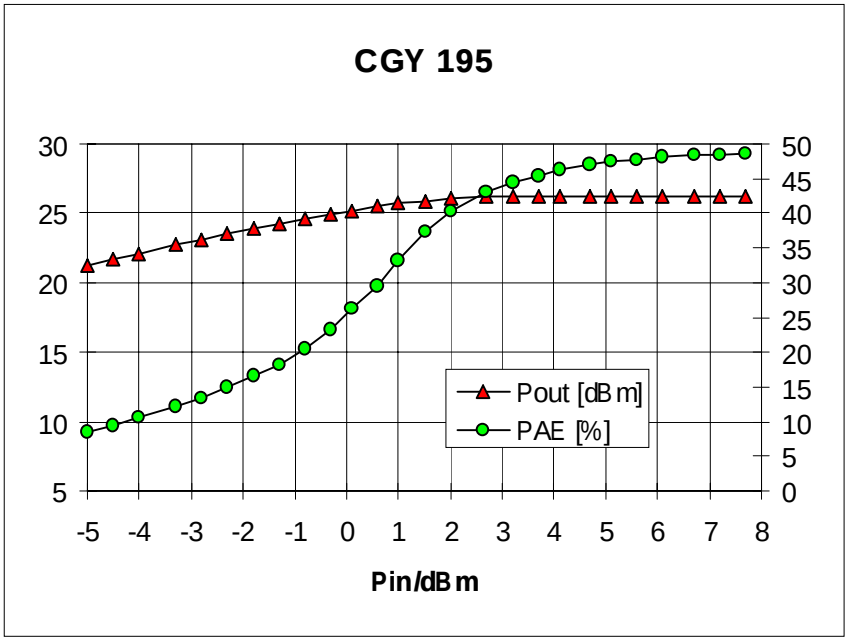
Electrical characteristics

(T_A = 25°C , f=1.89 GHz, Z_S=Z_L=50 Ohm, , unless otherwise specified)

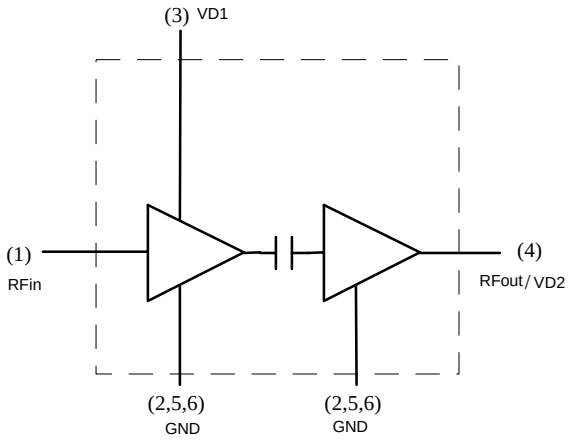
Characteristics	Symbol	min	typ	max	Unit
Supply current *VD=3.3V; Pin = +3 dBm*	I_{DD}	-	270	-	mA
Gain *VD=3.3V; P_{in} = -10 dBm*	G	-	26	-	dB
Output Power *VD=3.3V; P_{in} = 3 dBm*	P_O	-	26	-	dBm
Output Power *VD=4.8V; P_{in} = 5 dBm*	P_O	-	28	-	dBm
Overall Power added Efficiency *VD=3.3V; P_{in} = 3 dBm*	*PAE*		42	-	%

Output power and power added efficiency

pulsed mode: T=577µs, duty cycle 12.5%



Functional Block Diagram



Pin #		Configuration
1	**RFin**	RF input power
2	**GND**	RF and DC ground
3	**VD1**	Pos. drain voltage of the 1st stage
4	**RFout/VD2**	RF output power / Pos. drain voltage of the 2nd stage
5	**GND**	RF and DC ground
6	**GND**	RF and DC ground