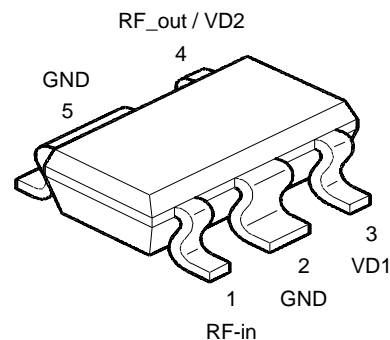


*Tentative Data*

- Power amplifier for DECT application,
- single voltage supply
- Operating voltage range: 2.7 to 6 V
- $P_{out} = 26\text{dBm}$  at  $V_d=3.3\text{V}$
- Overall power added efficiency 44 %

ESD: **E**lectrostatic **d**ischarge sensitive device,  
observe handling precautions!



VPW05980

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	$P_{inmax}$	t.b.d.	dBm
Channel temperature	$T_{Ch}$	150	°C
Storage temperature	$T_{stg}$	-55...+150	°C
Total power dissipation ( $T_s \leq 81\text{ °C}$ ) <i>T<sub>s</sub>: Temperature at soldering point</i>	$P_{tot}$	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

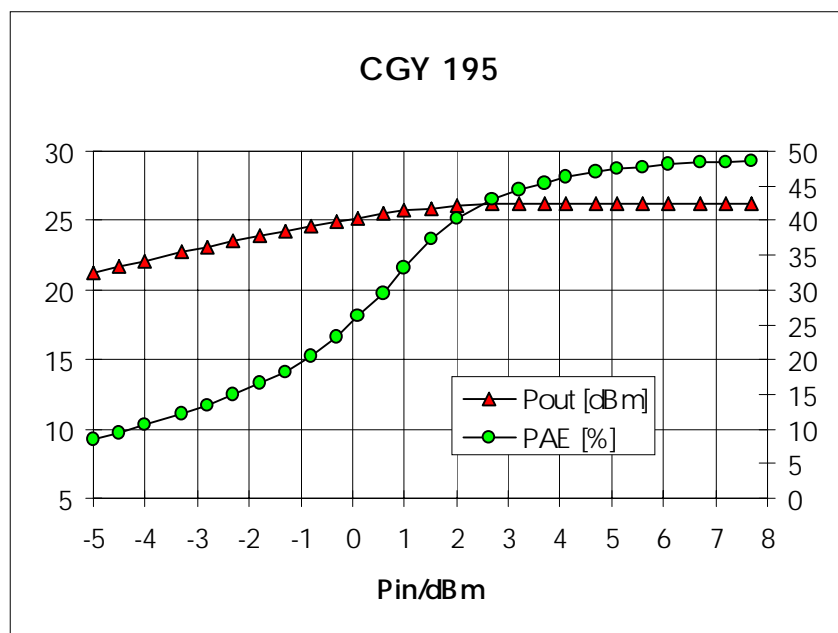
## Electrical characteristics

( $T_A = 25^\circ\text{C}$ ,  $f = 1.89\text{ GHz}$ ,  $Z_S = Z_L = 50\text{ Ohm}$ , , unless otherwise specified)

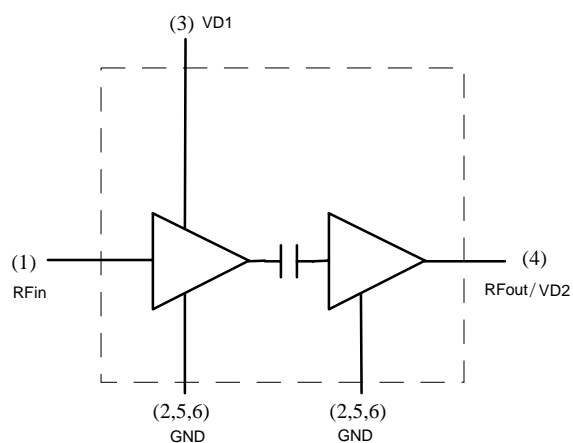
Characteristics	Symbol	min	typ	max	Unit
Supply current $V_D = 3.3\text{V}$ ; $P_{in} = +3\text{ dBm}$	$I_{DD}$	-	270	-	mA
Gain $V_D = 3.3\text{V}$ ; $P_{in} = -10\text{ dBm}$	$G$	-	26	-	dB
Output Power $V_D = 3.3\text{V}$ ; $P_{in} = 3\text{ dBm}$	$P_O$	-	26	-	dBm
Output Power $V_D = 4.8\text{V}$ ; $P_{in}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

## Output power and power added efficiency

pulsed mode:  $T = 577\mu\text{s}$ , duty cycle 12.5%



## Functional Block Diagram



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