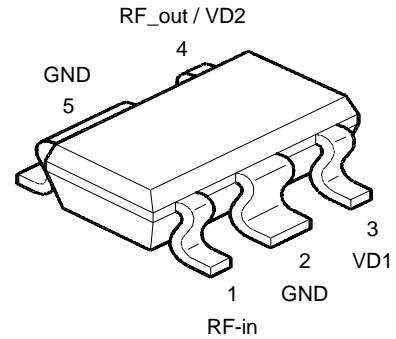


Tentative Data

- 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 %



VPW05980

ESD: **E**lectrostatic **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	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_s: 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
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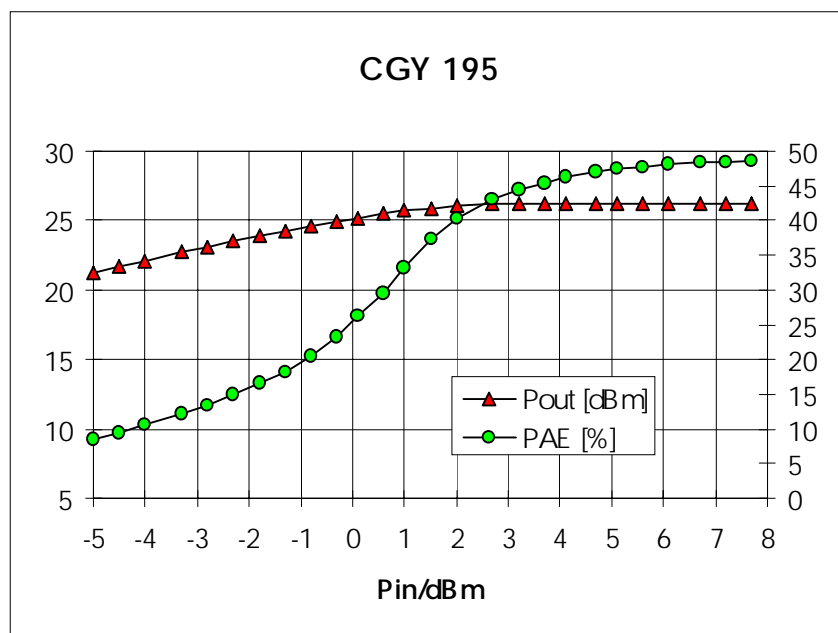
1) Plastic body identical to MW-6

Electrical characteristics

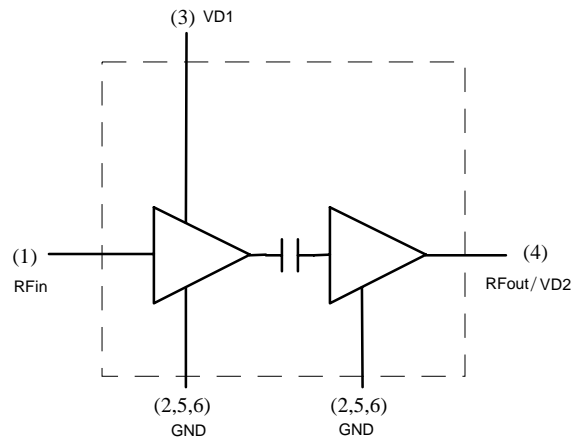
($T_A = 25^\circ\text{C}$, $f=1.89\text{ GHz}$, $Z_S=Z_L=50\text{ Ohm}$, unless otherwise specified)

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