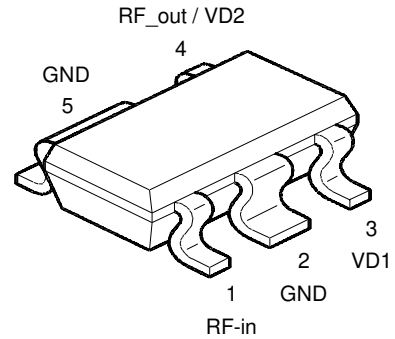


*Tentative Data*

- 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<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
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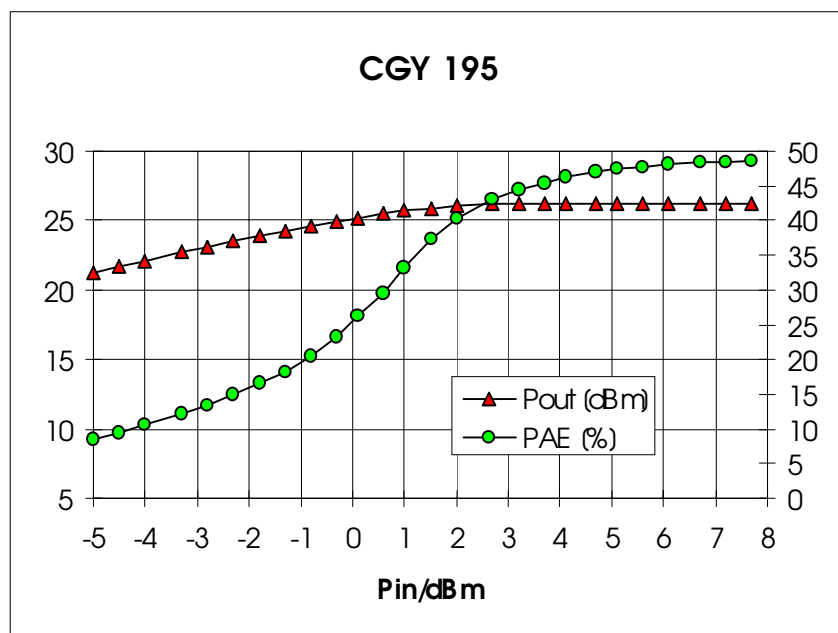
1) Plastic body identical to MW-6

**Electrical characteristics**

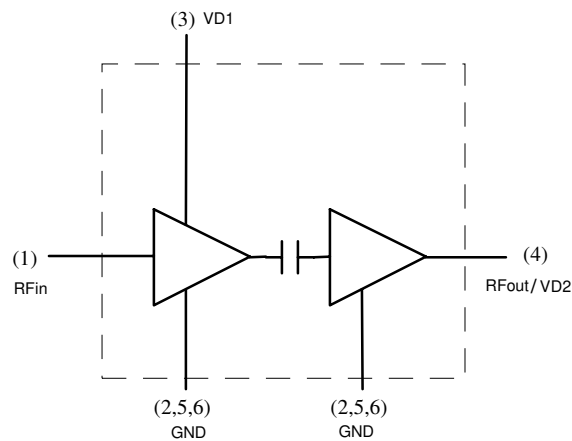
( $T_A = 25^\circ\text{C}$  ,  $f=1.89\text{ GHz}$ ,  $Z_S=Z_L=50\text{ Ohm}$  , unless otherwise specified)

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	<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