

**Nominal frequency (f0)**

**12.8 MHz**

**Frequency stabilities**

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-10 to 10 ppb -8 to 8 ppb	-10 ... 60 °C 0 ... 60 °C
Parameter	Value	Condition
initial tolerance (df/f0)	-100 to 100 ppb	@Vc = 2 V; 25 °C
vs. supply voltage change (df/f)	-2 to 2 ppb	static; 5 V ±5 %
vs. aging / daily (df/f)	<± 0.5 ppb	after 30 days ; @ 25 °C
vs. aging / month (df/f)	<± 20 ppb	after 30 days ; @ 25 °C
vs. aging / year (df/f)	<± 50 ppb	after 30 days ; @ 25 °C
vs. aging / 10 years (df/f)	<± 600 ppb	after 30 days ; @ 25 °C

**Frequency tuning**

Parameter	Value	Condition
Electrical frequency control (EFC) (df/f0)	-1.3 to -0.5 ppm 0.5 to 1.3 ppm	ext. tuning voltage @ 0 V ext. tuning voltage @ 4 V
Frequency control input impedance	> 50 kOhm	

**RF output**

Parameter	Value	Condition
Signal	CMOS comp.	
Load	10000 Ohm 0 % +5 %    15 pF ±5 %	
Rise Time	< 3 ns	@ 20 to 80 %Vout
Fall Time	< 3 ns	@ 80 to 20 %Vout
Duty cycle	45 / 55 %	@ 2.5 V
V Low	x < 0.5 V	
V High	x > 4.5 V	

**Supply voltage**

Parameter	Value	Condition
Supply voltage (Vs)	5 V ± 5 %	
Current consumption steady state	< 200 mA	@ Vsnom & 25 °C
Current consumption during warm up	< 500 mA	@ Vs

**Additional Parameters**

Parameter	Value	Condition	
Phase Noise	< -120 dBc/Hz	10 Hz	typ values
	< -135 dBc/Hz	100 Hz	
	< -150 dBc/Hz	1000 Hz	
	< -150 dBc/Hz	10 kHz	
	< -150 dBc/Hz	100 kHz	
Short term stability	<± 50.0 E-12 <± 100.0 E-12	1 sec 10 sec	
Warm-up time	< 5 min	@ 25 °C to final frequency	
Processing & Packing	handling&processing note		

**Additional environmental conditions**

Vibration mechanical vibration microfonics, all axes (x,y,z): max. 1ppb/g ,g=9,81m/s shaking frequency: 5-500Hz
Tensile strength of leads DIN IEC 68-2-21, Test Ua1
Flexibility of leads DIN IEC 68-2-21, Test Ub
Sealing test A hermetisch dicht (hermetically sealed)

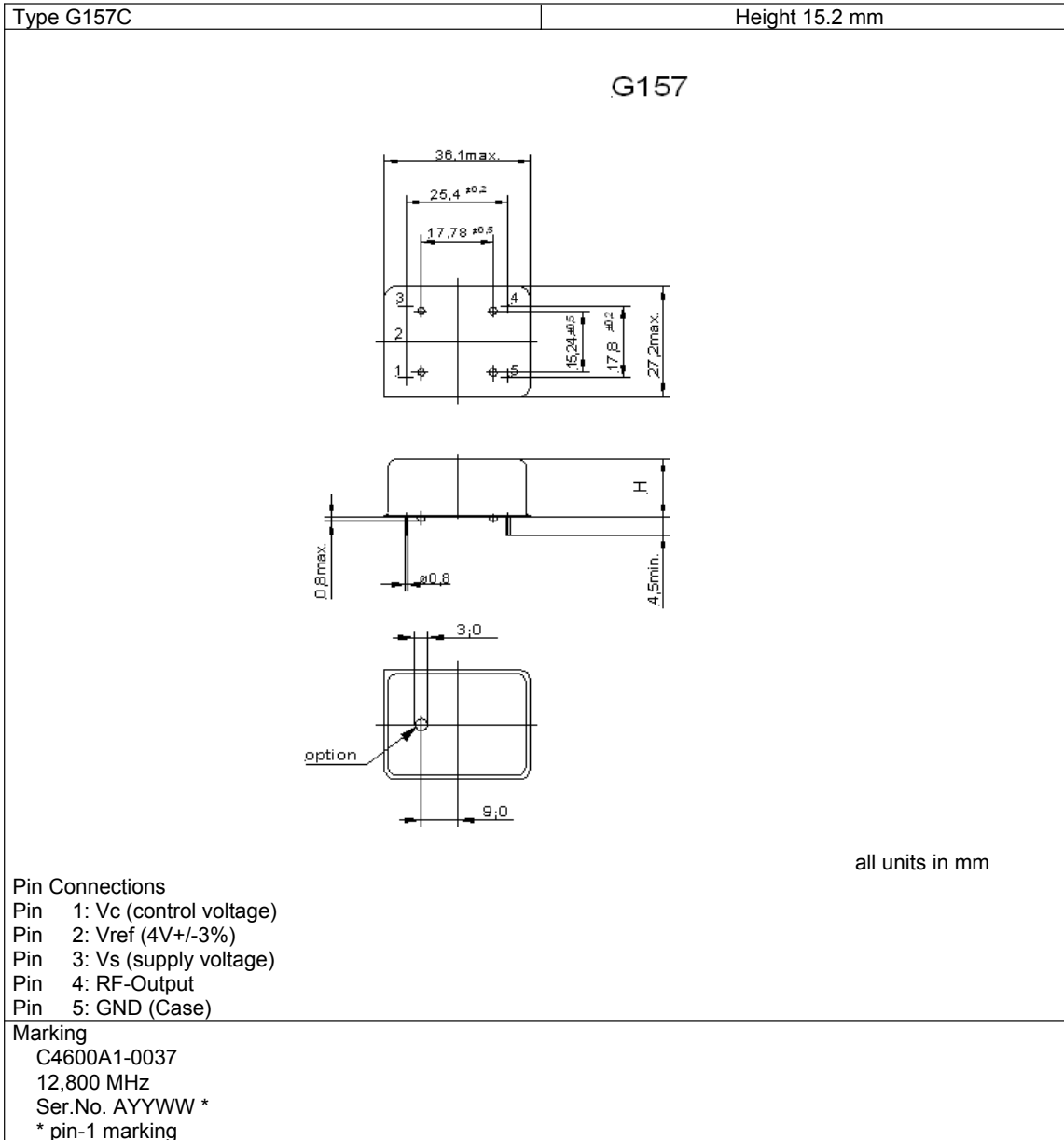
**Additional environmental conditions**

Solderability DIN IEC 68-2-20, Test Ta 100% RoHS compliant
Solvent resistance DIN IEC 68-2-45, Test xA washable device

**Absolute Maximum Ratings**

Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-20		85	°C	
Storage temperature range	-45		100	°C	

**Enclosure**



**Standard shipping method**

10 \* 3 array / 30 units per tray

**Notes:**

Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).  
Subject to technical modification.