



# AnaSem

*Analog Semiconductor IC*
**AS-CM01200BNA**

## 12.000MHz/CMO: CMOS Monolithic Clock Oscillator

### ■ 特長

- CMOS高精度発振 IC: 12.000MHz/3.3V
- 周波数安定度:  $\pm 1000\text{ppm}/-40\sim 85^\circ\text{C}$ ,  $V_{\text{DD}}=3.3\text{V}\pm 5\%$
- 低消費電流: 2.0mA/12.000MHz/3.3V
- 動作電圧範囲:  $3.3\text{V}\pm 5\%$
- SON-4Lパッケージ (2.1×2.0×0.6mm)
- カスタム仕様/周波数安定度:  $\pm 500\sim \pm 10000\text{ppm}$
- CMシリーズカスタム周波数範囲: 0.5Hz~500MHz

### ■ Features

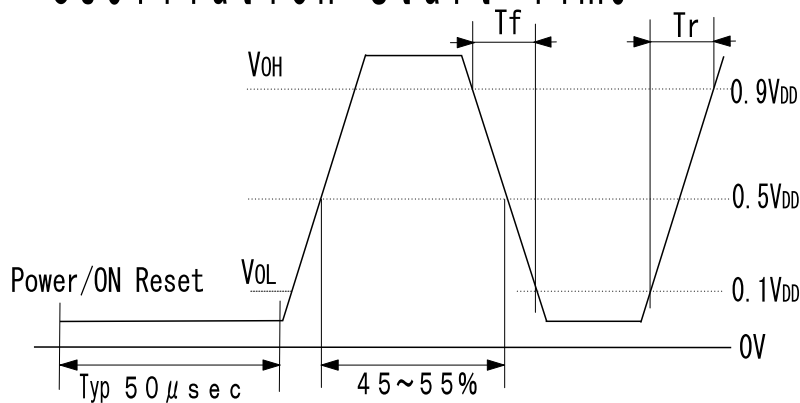
- CMOS High Accuracy Monolithic OSC
- Frequency Stability:  $\pm 1000\text{ppm}$
- Low Power Consumption: 2.0mA/3.3V
- Operating Voltage:  $3.3\text{V}\pm 5\%$
- SON-4L Package (2.1×2.0×0.6mm)
- Custom Spec/Stability:  $\pm 500\sim \pm 10000\text{ppm}$
- CM Series Custom Frequency Range: 0.5Hz~500MHz

### ■ 電気的特性 Specifications

項目 ITEM	型名 TYPE	AS-CM01200BNA
Output Frequency 出力周波数		12.000MHz
Frequency Stability 周波数安定度		$\pm 1000\text{ppm min}/-40\sim 85^\circ\text{C}/3.3\text{V}\pm 5\%$
Frequency Temperature Deviation 周波数温度偏差		$\pm 250\text{ppm typ}/3.3\text{V}/-40\sim +85^\circ\text{C}$
Frequency Room Temperature Deviation 常温周波数偏差		$\pm 250\text{ppm typ}/25^\circ\text{C}/3.3\text{V}$
Oscillation Start Time 発振開始時間		50 $\mu\text{sec typ}/25^\circ\text{C}/3.3\text{V}$
Operating Temperature Range 動作温度範囲		$-40\sim +85^\circ\text{C}$
Storage Temperature Range 保存温度範囲		$-50\sim +125^\circ\text{C}$
Power Supply Voltage 電源電圧		$+3.3\text{V}\pm 5\%$
Power Consumption(No Load) 消費電流 (無負荷)		typ: 2mA/3.3V, max: 4mA/3.3V
Output Symmetry 出力波形対称性		45% to 55% (at 1/2V <sub>DD</sub> ) / 3.3V/25 $^\circ\text{C}$
Rise Time/Fall Time 立ち上がり、立ち下がり時間		5nS max (0.3~3.0V) / 5nS max (3.0~0.3V)
Output Load 出力負荷		15 pF
Input Level 入力レベル		V <sub>IH</sub> : +3.0V min / V <sub>IL</sub> : +0.3V max
Output Level 出力レベル		V <sub>OH</sub> : +3.0V min / V <sub>OL</sub> : +0.3V max
Assembly Temperature Range 実装温度条件		Peak Temperature 255 $^\circ\text{C}\pm 5^\circ\text{C}$ for 5seconds max. Maximum Temperature: 260 $^\circ\text{C}$

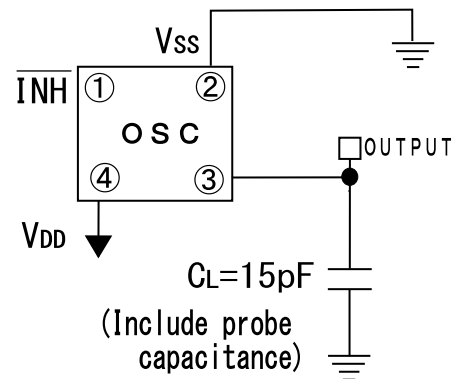
■ 発振波形／発振時間

Output Wave Form/Oscillation  
Oscillation Start Time

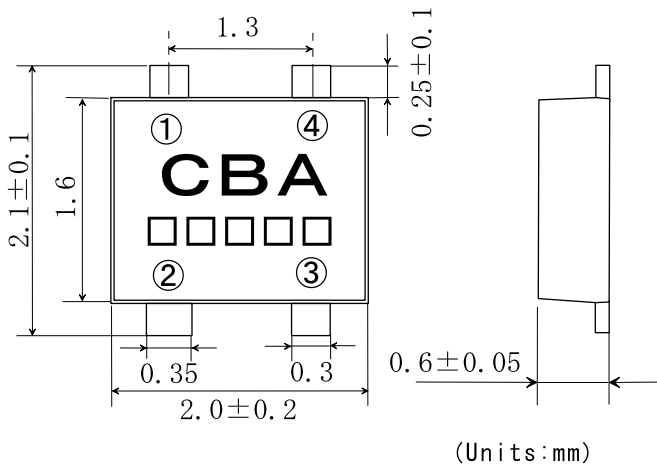


■ 測定回路

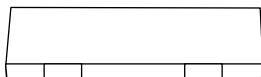
Measurement Circuit



■ 外形寸法 Package



TOP VIEW



(Units:mm)

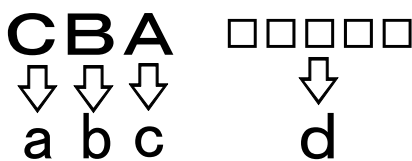
■ 接続端子

Pin Connections

①	$\overline{\text{INH}}$
②	GND ( $V_{SS}$ )
③	OUTPUT
④	3.3V ( $V_{DD}$ )

/ INHIBIT	
"L" Level	Open or "H" Level
High Impedance	Enable:Output

■ マーキング Marking



a	C:CMOS Monolithic Clock Oscillator
b	B:12.000MHz/3.3V
c	A:Frequency/Spec
d	Lot/Company Rule

製造元:アナセム株式会社

Maker :AnaSem. InC

〒274-0825 船橋市前原西2丁目13-10

2-13-10 Maehara Nishi Funabashi Chiba Japan

TEL (047) 470-5810 FAX470-5825

Home Page:http://www.anasem.co.jp

e-mail:support@anasem.co.jp