



# AnaSem

*Analog Semiconductor IC*
**AS-VC27000VMB**

## 27.000MHz/VCMO: CMOS Monolithic Voltage Controlled Oscillator

### ■ 特長

- 周波数可変範囲:  $\pm 2000\text{ppm}/V_c=1.65\text{V}\pm 1.65\text{V}$
- 周波数安定度:  $\pm 1000\text{ppm}/-20\sim 70^\circ\text{C}, V_{dd}=3.3\text{V}\pm 5\%$
- 低消費電流:  $4\text{mA}/27\text{MHz}/3.3\text{V}$
- 動作電圧範囲:  $3.3\text{V}\pm 5\%$
- SON-6Lパッケージ ( $2.0\times 1.8\times 0.6\text{mm}$ )
- VCシリーズカスタム周波数範囲:  $10\text{MHz}\sim 500\text{MHz}$

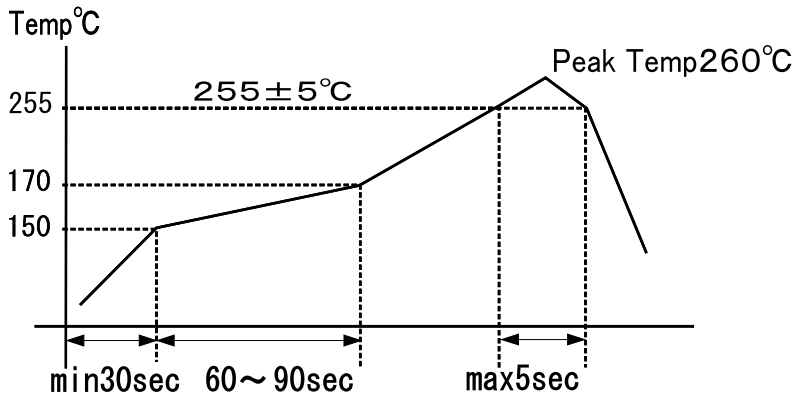
### ■ Features

- Frequency Deviation Range:  $\pm 2000\text{ppm}$
- Frequency Stability:  $\pm 1000\text{ppm}$
- Low Power Consumption:  $4\text{mA}/3.3\text{V}$
- Operating Voltage:  $3.3\text{V}\pm 5\%$
- SON-6L Package ( $2.0\times 1.8\times 0.6\text{mm}$ )
- VC Series Custom Frequency Range:  $10\text{MHz}\sim 500\text{MHz}$

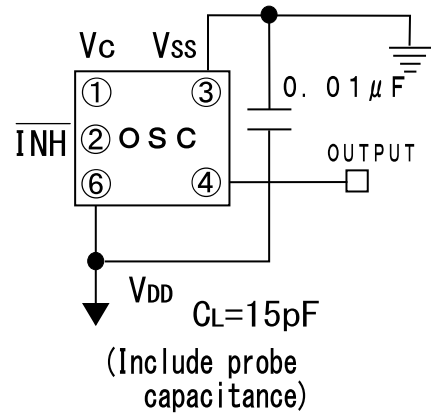
### ■ 電気的特性 Specifications

項目 ITEM	型名 TYPE	VC27000VMB
Output Frequency 出力周波数		27.000MHz
Frequency Deviation Range 周波数可変範囲		$\pm 2000\text{ppm min}/V_c=1.65\text{V}\pm 1.65\text{V}$
Frequency Stability 周波数安定度		$\pm 1000\text{ppm min}/-20\sim 70^\circ\text{C}/3.3\text{V}\pm 5\%$ (Initial Deviation at $25^\circ\text{C}$ included, $V_c=1.65\text{V}, V_{dd}=3.3\text{V}$ )
Frequency Stability/Power Supply Voltage 電源電圧周波数変動		$\pm 50\text{ppm max}/3.3\text{V}\pm 5\%$ (Reference at $25^\circ\text{C}, V_c=1.65\text{V}$ )
Frequency Tuning Voltage Range 公称周波数設定電圧偏差		$V_t=1.65\pm 0.3\text{V}/V_{DD}=3.3\text{V}/25\pm 2^\circ\text{C}$
Operating Temperature Range 動作温度範囲		$-20\sim +70^\circ\text{C}$
Storage Temperature Range 保存温度範囲		$-40\sim +85^\circ\text{C}$
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: $4\text{mA}/3.3\text{V}$ , max: $6\text{mA}/3.3\text{V}$
Output Symmetry 出力波形対称性		45% to 55% (at $1/2V_{DD}$ )/ $3.3\text{V}/25^\circ\text{C}$
Rise Time/Fall Time 立ち上がり、立ち下がり時間		$4.0\text{nS max}(0.3\sim 3.0\text{V})/4.0\text{nS max}(3.0\sim 0.3\text{V})$
Output Load 出力負荷		15pF
Input Level 入力レベル		$V_{IH}: +3.0\text{V min}/V_{IL}: +0.3\text{V max}$
Output Level 出力レベル		$V_{OH}: +3.0\text{V min}/V_{OL}: +0.3\text{V max}$
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: $260^\circ\text{C}$

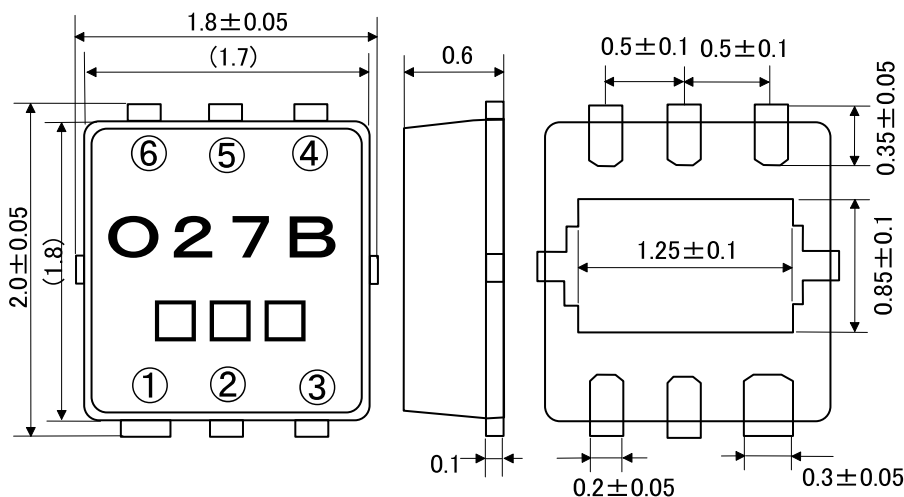
## ■ 推奨半田付け条件 / Recommended Reflow Soldering Condition



## ■ 測定回路 Measurement Circuit



## ■ 外形寸法 Package



## ■ 接続端子 Pin Connections

①	V <sub>c</sub>
②	INH
③	GND (V <sub>SS</sub> )
④	Output
⑤	NC
⑥	+3.3V (V <sub>DD</sub> )

## ■ マーキング Marking

O27B □□□

↓ ↓ ↓

a c

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

a	027: 27MHz
b	Version: B/3.3V
c	Production Lot: Company Rule

製造元: アナセム株式会社

Maker: AnaSem. Inc

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