

## Voltage Controlled Crystal Oscillator (VCXO)

# VG - 4030 JA

- Reflowable and high density mounting type SMD.
- Using the heat-resisting type AT cut crystal unit  
allows almost the same temperature soldering as universal SMD IC.
- Using C-MOS IC allows low current consumption.
- Operating supply voltage : 3.3V.

### ■ Specifications

#### 1. Absolute Maximum Ratings

Item	Symbol	Condition	MIN.	MAX.	Unit
Supply voltage	VDD	VDD-GND	-0.3	+7.0	V
Control voltage	VC	VC-GND	-0.3	VDD+0.3	V
Storage temperature	TSTG		-55	+125	°C
Soldering condition	TSOL	Under 260°C within 10 sec. ~ 2 times			

#### 2. Operating Condition

Item	Symbol	Condition	MIN.	MAX.	Unit
Supply voltage	VDD	VDD-GND	3.13	3.47	V
Control voltage	VC	VC-GND	GND	VDD	V
Operable temperature	TOPR		-20	+70	°C

#### 3. Frequency Characteristics

Item	Symbol	Condition	Spec.	Unit
Output Frequency	fo		16.384, 17.734475, 18.432, 22.5, 25.92, 27.0, 28.375, 28.5, 28.63636	MHz
Frequency stability	$\Delta f/fo$	VC=1.8V	± 37 MAX.	ppm
Aging	fg	Ta=25°C, 1st year	± 5 MAX.	ppm

Note : Frequency stability is including calibration tolerance, reflow soldering drift, operating temperature range (Ta), operating voltage range and load change (CL).

#### 4. Frequency Control

Item	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Input impedance	Zin	VC-GND (DC)	10			MΩ
Frequency adjustment range	$\Delta f/fo$	VC=0.0V to 3.0V, fo<20MHz	180			ppm
		VC=0.0V to 3.0V, fo≥20MHz	150			ppm
Vc for center frequency	Vco	Ta=25°C	1.6	1.8	2.0	V
Transfer function			Positive			

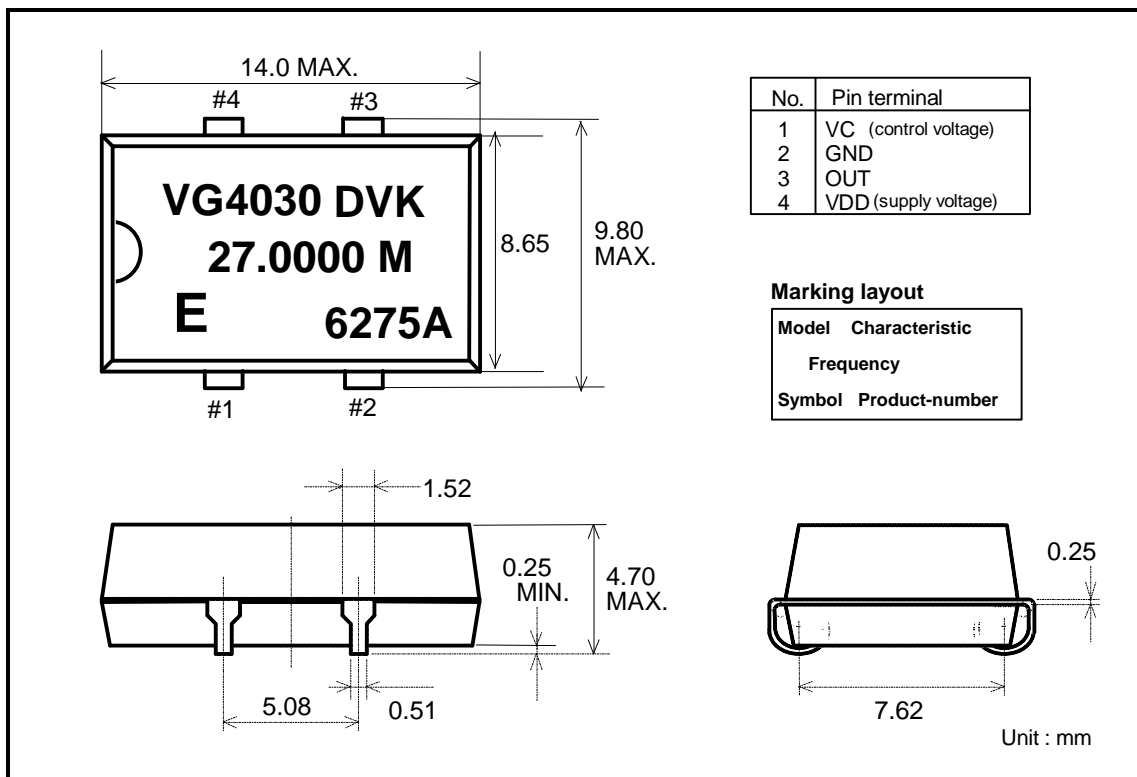
## 5. Electrical Characteristic

Item	Symbol	Condition	MIN.	MAX.	Unit
Supply current	IDD	VDD=3.0V, No load		18	mA
Start-up time	tosc	VDD=3.0V to be 0 sec.		10	ms

## 6. Output Characteristics

Item	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Output load	CL	C-MOS level			30	pF
Duty	Tw/T	1/2VDD level	40		60	%
Higt output voltage	VOH	IOH=-0.8mA	VDD-0.4			V
Low output voltage	VOL	IOL= 3.2mA			0.4	V
Output rise time	tTLH	20%~ 80% VDD		3	5	ns
Output fall time	tTHL	80%~ 20% VDD		3	5	ns

## External Dimensions



## Part Numbering Information

VG-4030JA - 27.000000 - DVK

Part Name - Output Frequency(MHz) - Frequency Characteristics Code

Frequency Characteristics Code : Frequency stability rank(DV) and Frequency adjustment range rank(K)