

VOL 新疆 CONTROLCED CRYSTAL OSCILLATOR (VCXO)

VG-4511CA

•Frequency range : 80 MHz to 170 MHz LV-PECL



Specifications (characteristics)

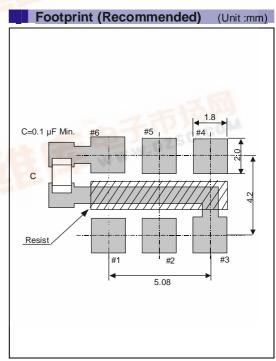
Item	Symbol	Specifications	Remarks	
Output frequency range	fo	80.000 MHz to 170.000 MHz	Please contact us for inquiries regarding available frequencies.	
Supply voltage	Vcc	3.3 V ±0.165 V		
Storage temperature range	T_stg	-55 °C to +125 °C	Store as bare product after unpacking	
Operating temperature range	T_use	As per below table.		
Frequency tolerance	f_tol	±50 × 10 ⁻⁶ Max.	Includes frequency aging (20 years)	
Current consumption	lcc	70 mA Max.	No load condition.	
Absolute pull range	APR	GCT:±50 × 10 ⁻⁶ Min.	Vc= 1.65 V ± 1.5 V	
Input resistance	Rin	100 kΩ Min.	DC level	
Frequency change polarity	_	Positive slope	Vc= 0 to 3.3 V	
Symmetry	SYM	40 % to 60 %	- WWW	
High output voltage	Vон	Vcc-1.1 V Min.		
Low output voltage	Vol	Vcc-1.5 V Max.	_	
Output load condition (ECL)	L_ECL	LV-PECL		
Output enable / disable input	VIH	70 % Vcc Min.	VIH or OPEN : Enable	
voltage	VIL	30 % Vcc Max.	VIL or GND : Disable	
Rise time / Fall time	tr/tf	1.5 ns Max.	20 % Vcc to 80 % Vcc level	
Start-up time	t_str	10 ms Max.	Time at minimum supply voltage to be 0 s	
Frequency aging	f_aging	This is included frequency tolerance	+25 °C, Vcc=3.3 V, 20 years	

^{*} Please keep Vc pin open or ground while powering up Vcc.

Operating temperature range

	Operating temperature range	
GGCT	−40 °C ~ +85 °C	
JGCT	−20 °C ~ +70 °C	
KCCT	0.00 - 170.00	

External dimensions (Unit:mm) WWW.DZSC.CO 7.0±0.2 #4 #6 #5 E 155.520 5.0±0.2 O VAG674A #1 #2 Pin map Vc C0.5 OUT1(Positive) OUT2(Negative) 2.54 Note. OE pin = "H" or "open" : Specified frequency output. OE pin = "L" : Output is high impedance, oscillation stops.



查询"VG-45QMEMS" EPSON TOYOCOM

In order to meet customer needs in a rapidly advancing digital, broadband and ubiquitous society, we are committed to offering products that are one step ahead of the market and a rank above the rest in quality. To achieve our goals, we follow a "3D (three device) strategy" designed to drive both horizontal and vertical growth. We will to grow our three device categories of "Timing Devices", "Sensing Devices" and "Optical Devices", and expand vertical growth through a combination of products from these categories.

A Quartz MEMS is any high added value quartz device that exploits the characteristics of quartz crystal material but that is produced using MEMS (micro-electro-mechanical system) processing technology.

Market needs are advancing faster than previously imagined toward smaller, more stable crystal products, but we will stay ahead of the curve by rolling out products that exceed market speed and quality requirements. We want to further accelerate the 3D strategy by QMEMS.

Quartz devices have become crucial in the network environment where products are increasingly intended for broadband, ubiquitous applications and where various types of terminals can transfer information almost immediately via LAN and WAN on a global scale. Epson Toyocom Corporation addresses every single aspect within a network environment. The new corporation offers "Digital Convergence" solutions to problems arising with products for consumer use, such as, core network systems and automotive systems.



PROMOTION OF ENVIRONMENTAL MANAGEMENT SYSTEM CONFORMING TO INTERNATIONAL STANDARDS

At Epson Toyocom, all environmental initiatives operate under the Plan-Do-Check-Action(PDCA) cycle designed to achieve continuous improvements. The environmental management system (EMS) operates under the ISO 14001 environmental management standard.

ISO 14000 is an international standard for environmental management that was established by the International Standards Organization in 1996 against the background of growing concern regarding global warming, destruction of the ozone layer and global deforestation

All of our major manufacturing and non-manufacturing sites, in Japan and overseas, completed the acquisition of ISO 14001 certification. In the future, new group companies will be expected to acquire the certification around the third year of operations.

WORKING FOR HIGH QUALITY

In order provide high quality and reliable products and services than meet customer needs,

Epson Toyocom made early efforts towards obtaining ISO9000 series certification and has acquired ISO9001 for all business establishments in Japan and abroad. We have also acquired ISO/TS 16949 certification that is requested strongly by major automotive manufacturers as standard.

QS-9000 is an enhanced standard for quality assurance systems formulated by leading U.S. automobile manufacturers based on the international ISO 9000 series.

ISO/TS 16949 is a global standard based on QS-9000, a severe standard corresponding to the requirements from the automobile industry.

► Explanation of the mark that are using it for the catalog

Free	▶ Pb free. ▶ Complies with EU RoHS directive.
Roëls	 ▶ Pb free terminal designed. Contains Pb in products exempted by RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.) ▶ Complies with EU RoHS directive.
For Automotive	▶The products have been designed for high reliability applications such as Automotive.

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- In this new crystal master for Epson Toyocom, product codes and markings will remain as previously identified prior to the merger.

 Due to the on-going strategy of gradual unification of part numbers, please review product codes and markings, as they will change during the course of the coming months.

We apologize for the inconvenience, but we will eventually have a unified part numbering system for Epson Toyocom that will be user friendly.



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