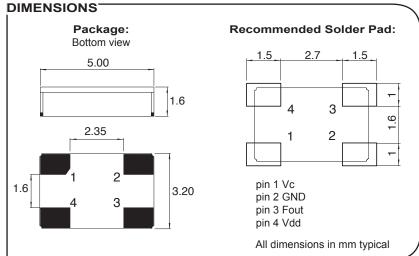


# VCXO2E family package 5×3.2 mm T range up to 210°C 5 to 40MHz



SMT Voltage control oscillator in ceramic package
Fundamental quartz mode frequency
High shock and vibration resistance
Wide temperature range
Low aging
Ultra low internal MSL
Very fast start-up
Excellent solderability
Swiss made quality
Customer specification on request

# ELECTRICAL CHARACTERISTICS AT +25°C



#### **DESCRIPTION:**

This SMD oscillator in ceramic package has been specially designed for surface mount using infrared, vapor phase or epoxy techniques.

#### **APPLICATIONS:**

- Downhole and Well drilling equipments
- Avionics
- Airbone equipments
- Geothermal equipments
- Fire fighter equipments

The VCXO2E's are supplied on trays (128 pcs / tray)
For pick-and-place equipment, the parts are available in 12mm tapes
with 250 parts min
1000 parts min

Absolute Frequency Pulling range APR (Minimum frequency deviation including 2)*  Tempperature range B= -40 to 85°C C= -55 to 125°C R= -10 to 150°C S= -10 to 175°C T= -10 to 210°C	ΔF/F	± 130 ± 110 ± 90 ± 50 ± 30	ppm
Supply voltage ± 5% 1)*	Vdd	3.3	V
Input current	ldd	see table 1	
Output signal		HC-MOS compatible	
Symmetry at Vdd/2		40 / 60	%
Rise & fall time (load 15pf 20% to 80%)		≤5	ns
Level "0" & "1"		<0.4>Vdvd-0.5	V
Start-up time	t	<5	ms
Load min / max		3/47	pF

- \* 1) C = 47nF ceramic must be connected between GND & Vdd
- \* 2) APR is inclusive of frequency deviation due to stability adjustment at +25°C, long term aging 1 year over supply voltage ±5% over load min to max frequency stability over T range

TABLE 1: Idd (Without load)

Frequency	F=< 10MHz	≤ 20MHz	40MHz
V=Vdd = 3.3V	< 4mA	< 5mA	< 20mA

#### FREQUENCY CONTROLE RANGE:

Vc (Voltage control range)	0 to 3.3V
Response Slope	positive
frequency bandwich	≤10kHz
Input impedance	≥100kohm

#### **STANDARD FREQUENCIES:**

Frequency «MHz»			
10	12.288	12.8	20
24	24.576	25.6	
Other frequencies on request			

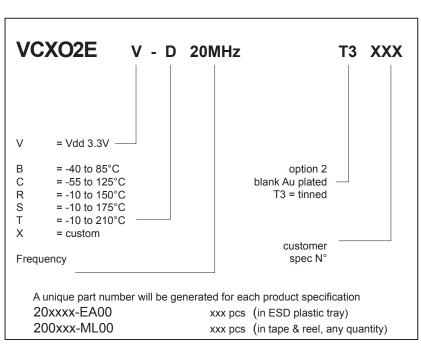
# ENVIRONMENTAL CHARACTERISTICS:

Storage temp. range	-65 to +125°C
Vibration resistance	10 to 2000Hz / 40g
Shocks resistance	10000g / 0.3ms / ½ sine

## TERMINATIONS AND PROCESSING:

Reflow soldering	260°C / 10s max
Package	Ceramic 5 x 3.2 x 1.6mm
Lids	Ceramic (Kovar on version T)
Terminations option T3 on request (not available on T temperature range)	with tinned Ag/Cu/Zn

## PRODUCT DESCRIPTION AND ORDERING INFORMATION:



All specifications subject to change without notice.



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