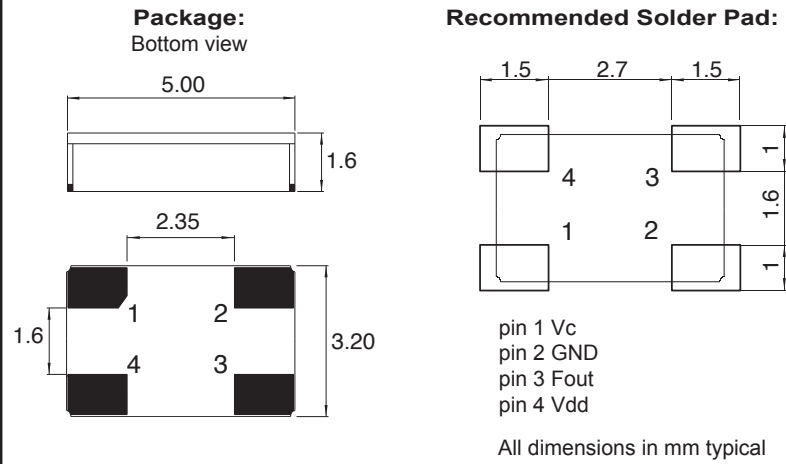


DIMENSIONS



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

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

ELECTRICAL CHARACTERISTICS AT +25°C

Absolute Frequency Pulling range APR (Minimum frequency deviation including 2)*				
Temperature range		$\Delta F/F$		ppm
B= -40 to 85°C		± 130		
C= -55 to 125°C		± 110		
R= -10 to 150°C		± 90		
S= -10 to 175°C		± 50		
T= -10 to 210°C		± 30		
Supply voltage $\pm 5\%$	1)*	Vdd	3.3	V
Input current		Idd	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"			$< 0.4 > V_{dvd} - 0.5$	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 $\pm 5\%$
 over load min to max
 frequency stability over T range

**TABLE 1: I_{dd}
(Without load)**

Frequency	F=< 10MHz	≤ 20MHz	40MHz
V=V _{dd} = 3.3V	< 4mA	< 5mA	< 20mA

FREQUENCY CONTROLE RANGE:

V _c (Voltage control range)	0 to 3.3V
Response Slope	positive
frequency bandwiche	≤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:**

VCXO2E		V - D	20MHz	T3	XXX
V = V _{dd} 3.3V 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 X = custom Frequency _____			option 2 blank Au plated T3 = tinned customer spec N°		
A unique part number will be generated for each product specification 20xxxx-EA00 xxx pcs (in ESD plastic tray) 200xxx-ML00 xxx pcs (in tape & reel, any quantity)					

All specifications subject to change without notice.



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