

Typical Applications

Telecommunication

Features

5x7 ceramic oscillator

Previous Vectron Model Numbers

BC

Frequency range

2 MHz – 50 MHz

Frequency stabilities¹ [Standard]

Parameter	Min	Typ	Max.	Units	Operating temp range	Ordering Code ⁵
overall tolerance (vs. Initial, vs. operating temperature range vs. Load vs. Supply, vs:1 year aging)	-100.0		+100.0	ppm	-0 ... +70°C	C104
	-50.0		+50.0	ppm	-0 ... +70°C	C505
	-25.0		+25.0	ppm	-0 ... +70°C	C255
	-100.0		+100.0	ppm	-40 ... +85°C	F104
	-50.0		+50.0	ppm	-40 ... +85°C	F505
	-32.0		+32.0	ppm	-40 ... +85°C	F325

Supply voltage

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code ⁵
Supply voltage (Vs)	4.75	5.0	5.25	VDC		SV050
Current consumption			35	mA	fo < 20 MHz	
Current consumption			45	mA	fo < 70 MHz	
Supply voltage (Vs)	3.135	3.3	3.465	VDC		SV033
Current consumption			25	mA	fo < 20 MHz	
Current consumption			40	mA	fo < 70 MHz	

RF output

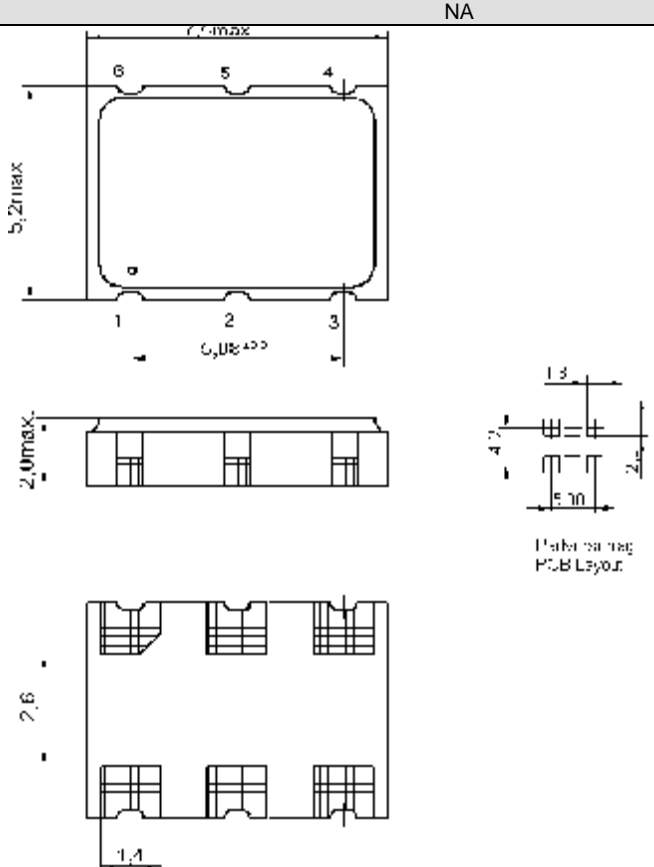
Parameter	Min	Typ	Max.	Units	Condition	Ordering Code ⁵
Signal		HCMOS				RFH
Load		15.0		pF		
Rise and Fall time			10	ns	@ 15 pF 10 to 90 %	
Duty cycle	40		60	%	@ Vs/2	

Frequency Tuning (EFC)

Parameter	Min	Typ	Max.	Units	Condition
Tuning Range	±50.0 ±100.0	±90.0 ±140.0	+200.0 ±200.0	ppm ppm	
Linearity			10	%	
Tuning Slope		Positive			
Control Voltage Range	0.0 0.5	1.65 2.5	3.3 4.5	VDC VDC	with Vs=3.3VDC with Vs=5.0VDC
Frequency control input impedance	10			k Ω	

Enclosure

Type A			
Package Codes:			
Code	Height "H"	Pin Length "L"	
A1	1,9	NA	



Dimensions: mm

Pin Connections			
1 Voltage Control	Option	Pin 2	Pin 4
2 Tri-State Control	Enable	High	Output clock
3 Ground (Case)		Open	
4 RF Output		Low	High resistance output
5 NC			
6 Supply Voltage Input (Vs)			

Outline Drawing:

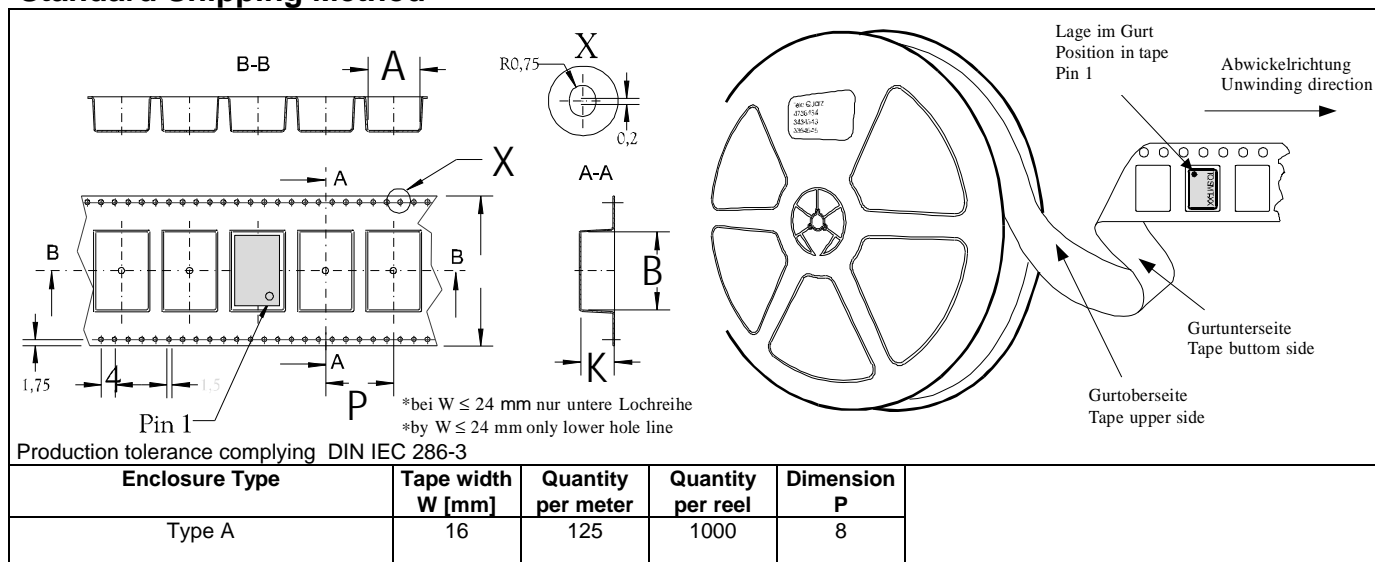
Marking

C5259A1-xxxx
 frequency
 * C XYYWW

Absolute Maximum Ratings

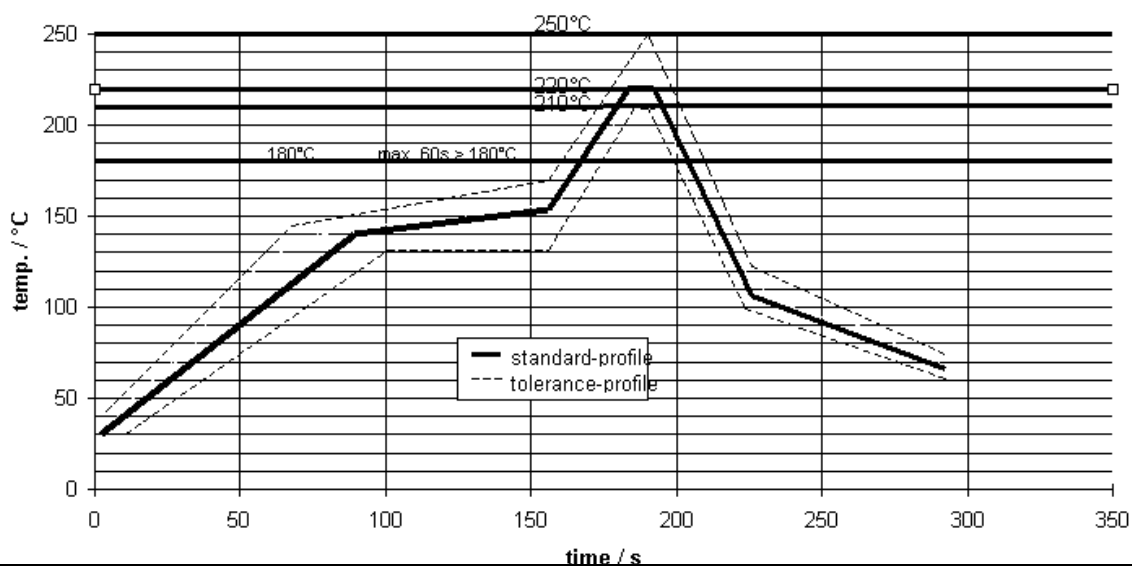
Parameter	Min	Typ	Max.	Units	Condition
Supply voltage (Vs)			7	V	
Operable temperature range	-30		+80	°C	
Storage temperature range	-40		+90	°C	

Standard Shipping Method



Recommended Reflow Profile

standard-reflow-profile for SMD-oscillators



SMD oscillators must be on the top side of the PCB during the reflow process.

How to Order this Product:

Step 1	Use this worksheet to forward the following information to your factory representative:				
	Model	Stability Code	Supply Voltage Code	Tuning Range	Package Code
	C5259				
Example:	C5259	C104	SV050	50	A1

Step 2	The factory representative will then respond with a Vectron Model Number in the following Configuration:			
	Model	Package Code	Dash	Dash Number
	C5259	[Customer Specified Package Code]	-	[Factory Generated 4 digit number]

Typical P/N = C5259A1-0001

Notes:

- 1 Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
- 2 Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C)
- 3 Phase noise degrades with increasing output frequency.
- 4 Subject to technical modification.
- 5 Contact factory for availability.