

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 | |

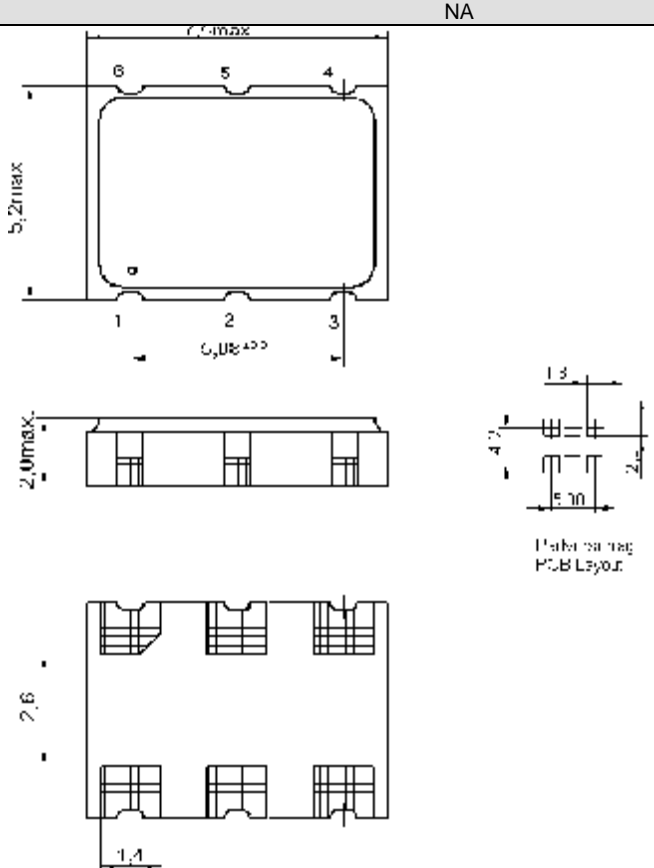
RF output

| 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 | ±90.0 | +200.0 | ppm | |
| | ±100.0 | ±140.0 | ±200.0 | ppm | |
| Linearity | | | 10 | % | |
| Tuning Slope | Positive | | | | |
| Control Voltage Range | 0.0 | 1.65 | 3.3 | VDC | with Vs=3.3VDC |
| | 0.5 | 2.5 | 4.5 | VDC | with Vs=5.0VDC |
| Frequency control input impedance | 10 | | | k Ω | |

Enclosure

| Type A | | | |
|---|-------------------|----------------------|--|
| Package Codes: | | | |
| Code A1 | Height "H" 1,9 | Pin Length "L" NA | |
|  <p style="text-align: right;">Dimensions: mm</p> | | | |
| Pin Connections | | | |
| 1 Voltage Control 2 Tri-State Control 3 Ground (Case) 4 RF Output 5 NC 6 Supply Voltage Input (Vs) Outline Drawing: | Option | Pin 2 | Pin 4 |
| | Enable | High Open Low | Output clock High resistance output |
| 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 | |

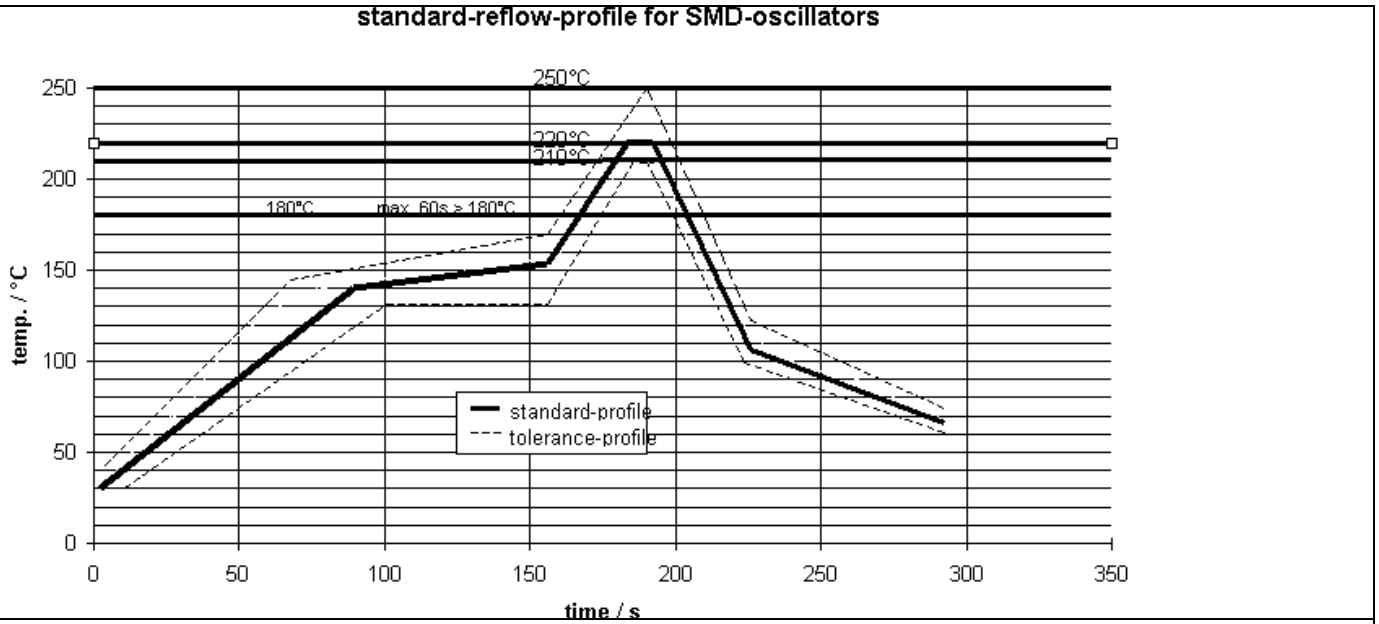
Standard Shipping Method

Production tolerance complying DIN IEC 286-3

| Enclosure Type | Tape width W [mm] | Quantity per meter | Quantity per reel | Dimension P |
|----------------|-------------------|--------------------|-------------------|-------------|
| Type A | 16 | 125 | 1000 | 8 |

Recommended Reflow Profile

standard-reflow-profile for SMD-oscillators



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.