



PHONE: (434) 295-3101
FAX: (434) 977-1849

M43VVTT

MINIATURE CRYSTAL OVEN SPECIFICATION

This specification defines the operating characteristics of a component heater. Long term reliability and stability are assured through use of premium components.

REV	DESCRIPTION OF REVISION	BY	APV	DATE
-	Redrawn on new form was dwg. 115-036.	BTG	TST	02-16-2004

This M43VVTT specification covers input voltages from +5 VDC to +28 VDC and set point temperatures from +35°C to +95°C. The VV in the part number specifies the nominal operating voltage. If the voltage is less than +10 VDC, use a leading zero (i.e. for +5 VDC use VV = 05). The TT in the part number specifies the set point temperature in °C (i.e. for +75°C use TT = 75). VV and TT are used in this specification to describe the operation of this oven.

1. TEMPERATURE

- 1.1. Set point +TT °C (Customer specified)
(+35°C to +95°C)
- 1.2. Initial tolerance < ±3°C @ +25°C

2. STABILITY

- 2.1. Ambient < ±3°C from -30°C to (TT-10)°C
- 2.2. Voltage < ±0.5°C/±10% change
- 2.3. Warm-up < ±1°C in 2 minutes @ +25°C
(referenced to temperature at 15 minutes)

3. INPUT POWER

- 3.1. Voltage +VV VDC (Customer specified)
(+5 VDC to +28 VDC)
- 3.2. Voltage tolerance ±10%
- 3.3. Power
 - a. At turn on < 6 Watts @ +25°C
 - b. Slope * -0.024 Watts/°C typicalTo calculate the typical steady state power use the following formula.
 $P_{ss} = (TT - \text{ambient temperature of unit})^{\circ}\text{C} \times 0.024 \text{ (Watts)}$

4. MECHANICAL

- 4.1. Heated cavity holds the following crystals HC-18/U, HC-25/U,
HC-42/U, HC-43/U,
HC-49/U, and HC-50/U
- 4.2. Applicable series M43 series
- 4.3. Model number M43VVTT (Customer specified)
- 4.4. Outline drawing 125-365

* In still air.

See ISOTEMP application note 146-003 for design considerations.

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	31785	M43VVTT	1	1	114-1183	-

