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M05VVTT

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. 115-037.	BTG	TST	02-10-2004

This M05VVTT 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 typical

To 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 and semi-conductors

HC-35/U, T0-5, and T0-39

4.2. Applicable series

M05 series

4.3. Model number

M05VVTT (Customer specified)

4.4. Outline drawing

125-366

* In still air.

See ISOTEMP application note 146-003 for design considerations.

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	31785	M05VVTT	1	1	114-1182	-

