
SMD EE Models, TCXOs, 3.3 or 5.0 Volts

MF Electronics EE (SMD) TCXOs are miniature oscillators with many specification combinations. They may be had within the frequency range of 1.25 MHz to 40 MHz, and are ideal for high volume, low cost applications.

Many choices of stability and temperature are possible, resulting in the optimum cost-performance tradeoff. Oscillators may be for 3.3 or 5.0 volts. Mechanical control is standard, but electronic control may be added, allowing the frequency to be set to, or track to a reference frequency.

HCMOS output may be chosen to drive logic devices. but when clipped sine wave is used, the current is less than 2.5 mA. They are furnished in tape and reel for automated production.

FIXED FREQUENCY

These surface mount oscillators are available from 1.25 MHz to 40 MHz

VOLTAGE CONTROL OF FREQUENCY

±5 ppm or ±10 ppm min is controlled by external voltage

MECHANICAL CONTROL OF FREQUENCY

±3 ppm min

STABILITY

±1 to ±5 ppm

TEMPERATURE

Four temperature-stability ranges

AGING

Less than 1 ppm per year

INPUT VOLTAGE

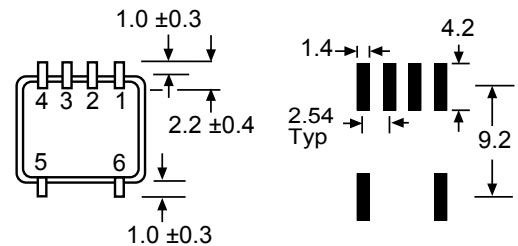
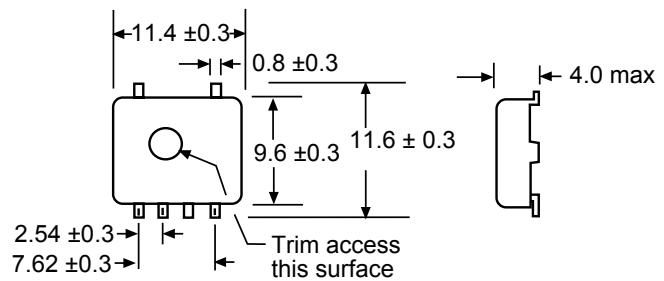
3.3 or 5.0 volts available

FEATURES

- Low power, low voltage
- Ideal for battery powered equipment
- Recommended for portable, mobile, wireless equipment
- Four stability choices
- Guaranteed start-up with ramping DC Supply
- Choice of two supply voltages
- Choice of two output waveforms

CONNECTIONS

Pad 1.	Supply Voltage, Vdd
Pad 2.	Electronic Frequency Control or No Connection
Pad 3.	Ground
Pad 4.	Output
Pad 5.	Ground
Pad 6.	Ground



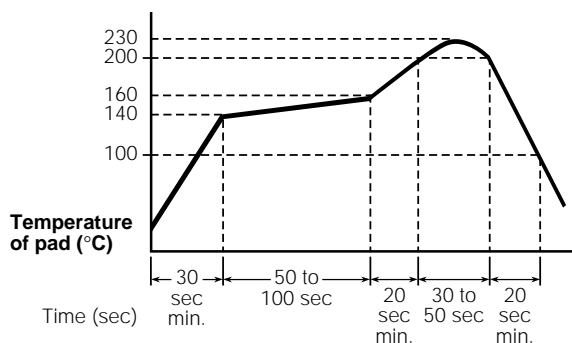
All dimensions are in mm.

Land Pattern

TCXO-EE Models

MARKING SPECIFICATION

Oscillator is marked with part number, frequency and date code



Recommended Reflow Soldering Profile

SPECIFICATIONS

Temperature

Operating

Choice of 4 ranges

Input Voltage, V_{DD}

3.3 volts $\pm 5\%$, or 5.0 volts $\pm 5\%$

Input Current

2.5 ma, max (clipped sine wave)
25 ma, max (HCMOS)

Frequency Range

Any frequency from 1.25 MHz to 40 MHz

Output Choice

Clipped Sine Wave
(10 to 40 MHz)

0.8 volts p-p, min, clipped sine wave
into 10 pf in parallel with 10 Kohms

HCMOS
(1.25 to 40 MHz)

HCMOS output into 15 pf max load,
with 40/60 symmetry

Frequency Stability

vs Temperature

± 1 ppm to ± 5 ppm choices

Aging, at 25°C

± 1 ppm per year at 25 °C

Frequency Control, Electronic

3.3V supply voltage
5V supply voltage

± 5 or ± 10 ppm, min for 1.65 ± 1.0 V
 ± 5 or ± 10 ppm, min for 2.5 ± 2.0 V

Frequency Control, Mechanical

± 3 ppm, min

PART NUMBERING GUIDE

Example: EE-A1.5A1A40.000

