

ET MicroClip™ Installation Guide

Items: FP-T23-02 / FP-T23-04 / FP-T23-06 / FP-T23-08

Rev A. 8/26/05

Purpose

The ET MicroClip™ is specially designed for providing new or additional test points on Printed Circuit Boards (PCB). The MicroClip attaches to surface mount passive components, including resistors, capacitors and inductors. Four sizes are available, conforming to EIA standard 0201, 0402, 0603 and 0805 dimensions. Together with Emulation Technology's MicroGrippers, the MicroClips provide the engineer with a complete hands-free system for probing various points on a PCB regardless of the availability of test points.

Installation

1. The MicroClip comes in four available sizes conforming to EIA standards 0201, 0402, 0603 and 0805. Please choose the appropriate MicroClip according to the dimensions shown in Figure 1 at the right. Table 1 below gives the appropriate MicroClip model number for use with a particular component size. Note that length (L) is the critical dimension, as too long or short a device will not allow the MicroClip to clip on to the ends of the device under test (DUT).

FIGURE 1.

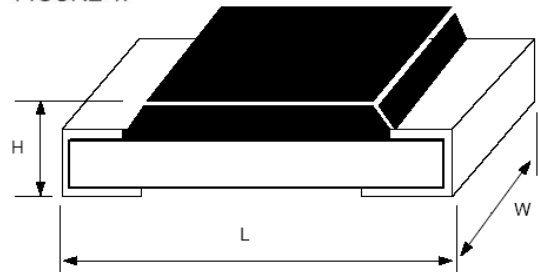
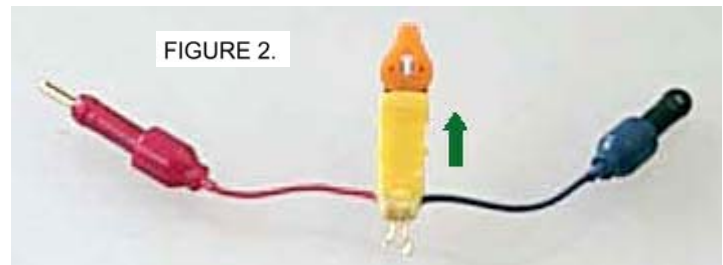
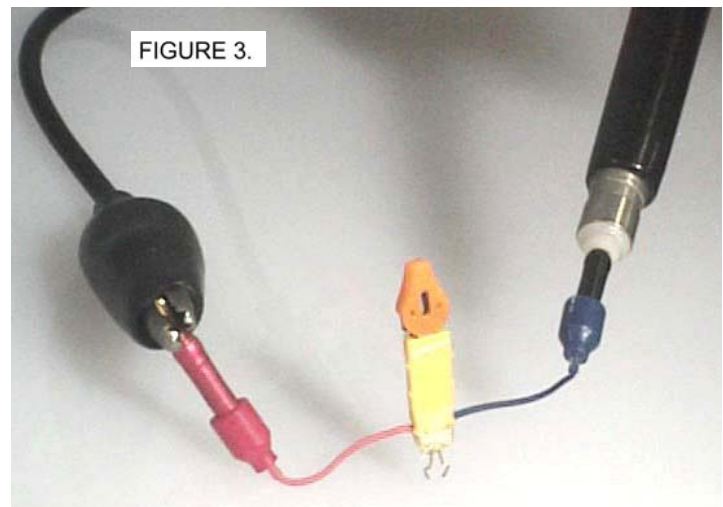


Table 1: MicroClip Models

Model	EIA Code	L in [mm]	W in [mm]	H in [mm]
FP-T23-02	0201	0.02 [0.6]	0.01 [0.3]	0.009 [0.23]
FP-T23-04	0402	0.04 [1.0]	0.02 [0.5]	0.013 [0.35]
FP-T23-06	0603	0.06 [1.6]	0.03 [0.8]	0.017 [0.45]
FP-T23-08	0805	0.08 [2.0]	0.05 [1.3]	0.020 [0.50]



2. Ensure the slider body is fully raised to allow the MicroClip's pointed grippers to fully expand (Figure 2).



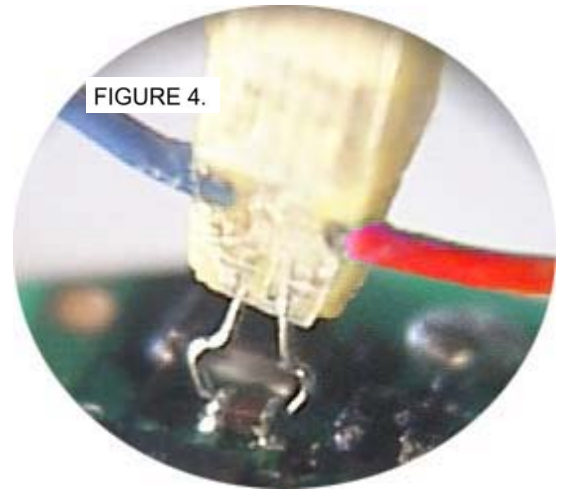
3. Connect the MicroClip to the measurement device using appropriate cables (Figure 3). An assortment of cables is available, each with a $\phi 0.75\text{mm}$ male end for insertion into the MicroClip's leads. Please see the MicroClip data sheet for details of these cables.

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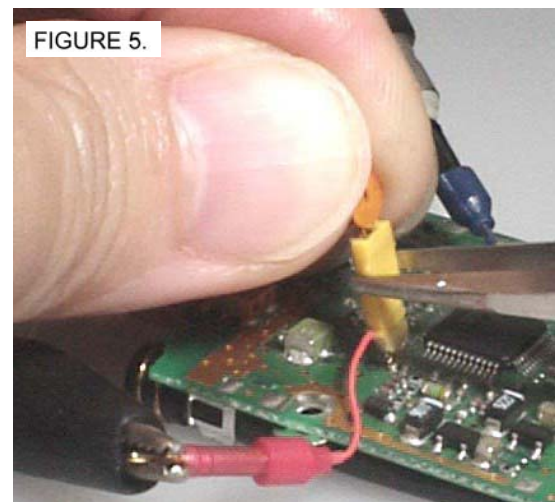
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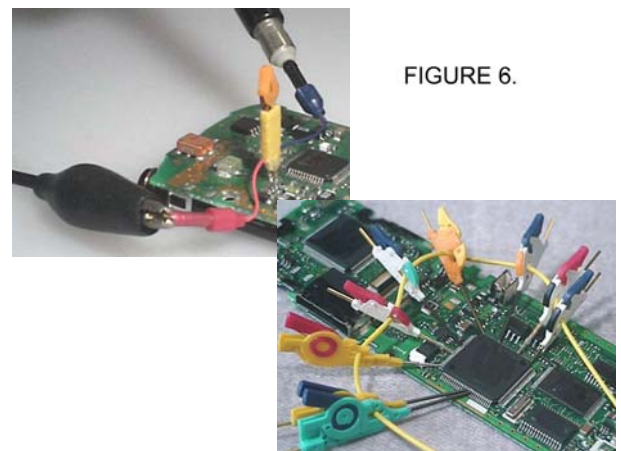
4. Place the MicroClip such that the grippers align with the SMD's solder joints (Figure 4).



5. Holding a pair of tweezers perpendicular to the MicroClip's body, slide the body down to engage the MicroClip's grippers into the solder (Figure 5). Do not slide the body fully down over the grippers; slide it just enough so the grippers prick into the solder. An integrated magnifying glass and tweezers set is available to assist with installing the MicroClip (Emulation Technology part FP-T20).



6. The MicroClip is now ready for use. When combined with Emulation Technology's MicroGrippers™ (<http://www.emulation.com/catalog/170>), a complete hands-free probing system can be realized (Figure 6).



Note: Do not pull the clip from the DUT without first sliding the body fully upward to release the probe tips.