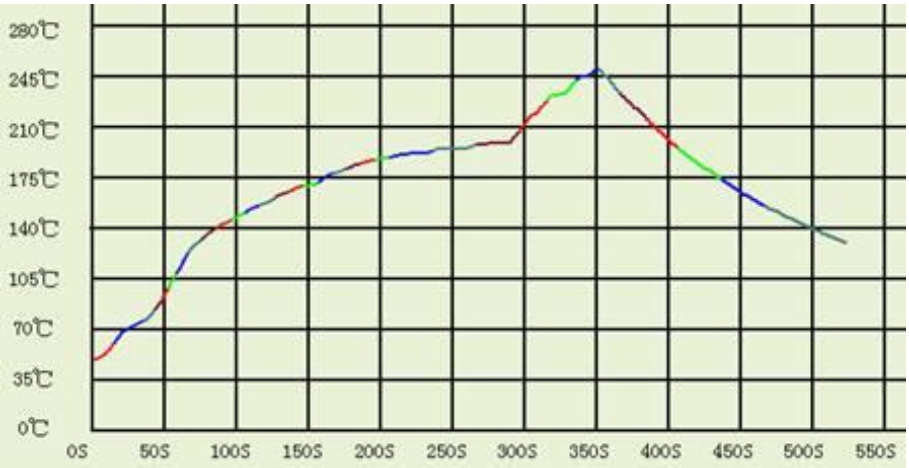
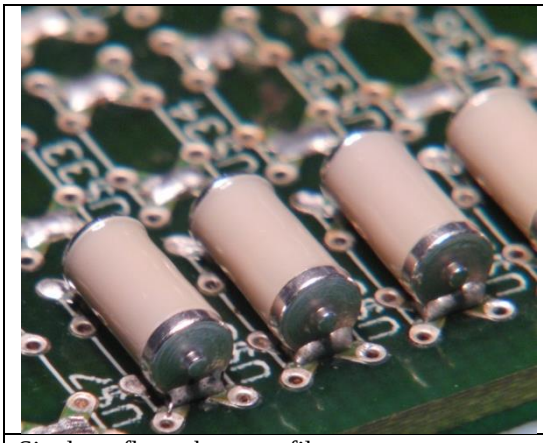
REFLOW SOLDER PROFILE (RHODIUM PLATED VERSION)

When soldering rhodium plated sensors, better results are achieved by using a slightly higher peak temperature and slightly longer time above liquidous when compared to the gold plated counterparts. Solder does not wick as high as it would with gold sensors, but the bonds to the pads are extremely strong. The solder paste used was AIM WS488 SAC305. One example of a successful profile is shown below.



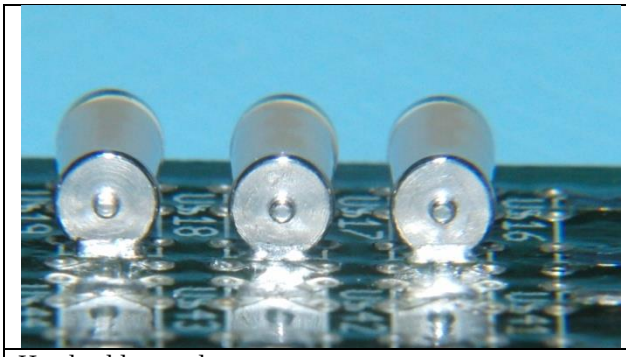


Single re-flow, above profile

SUMMARY

1. Soldering rhodium plated sensors is more difficult than gold plated sensors
2. With slightly increased peak temperature and time above liquidous reflow soldering is successful

HAND SOLDER PROCEDURE (RHODIUM PLATED VERSION)



Hand solder results

SUMMARY

1. Soldering rhodium plated sensors is more difficult than gold plated sensors
2. Process:
    a. Use computer controlled solder tip temperature
    b. Apply solder bump to PCB pad
    c. Apply tacky flux to sensor's end
    d. Heat pad, then bring sensor to pad
    e. Let solder iron dwell on joint
    f. Remove solder iron
3. For tip temperature of 600 F (315 C), use 5 - 10 seconds dwell
4. For tip temperature of 700 F (371 F), use 3 - 5 seconds dwell (watch video for technique!!!)

SEE TRAINING VIDEOS HERE

https://www.youtube.com/watch?v=1AtuzhR_VNM