

- **CRU Description:**

Unit#1: leakage 1mA

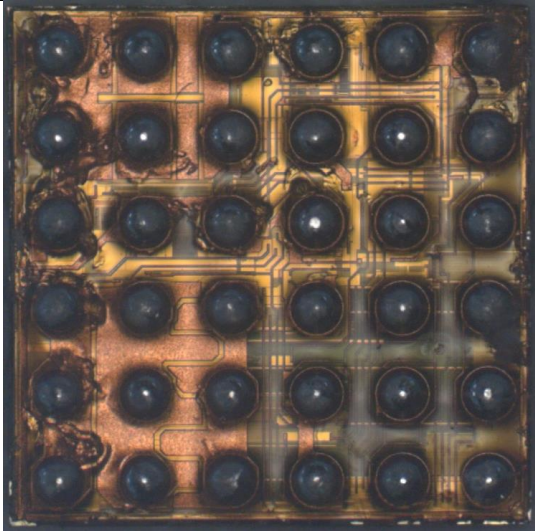
Unit#2: low voice

Unit#3: no voice

- **FA Result:**

Unit#1 are covered by underfill, cannot observe minor damage.

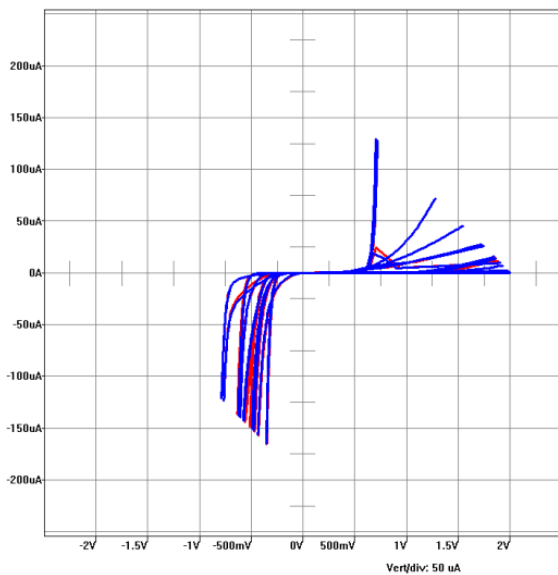
IV test pass, No open/short or leakage fail was observed.



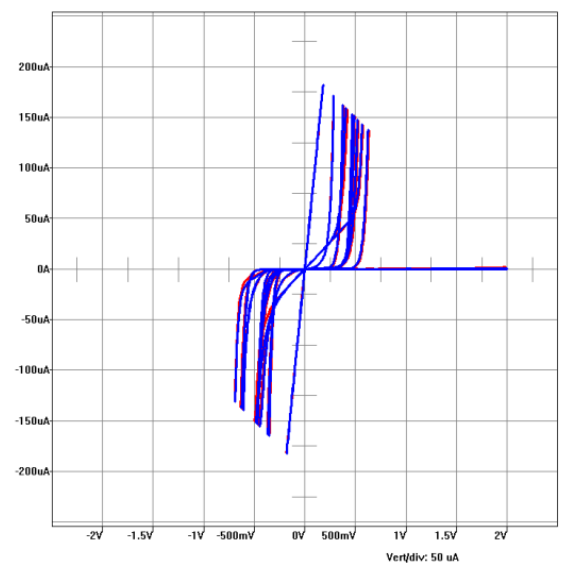
a. bottom view of unit#1



b. Bottom zoom view of unit#1



c. Pin to Gnd curve trace of unit#1

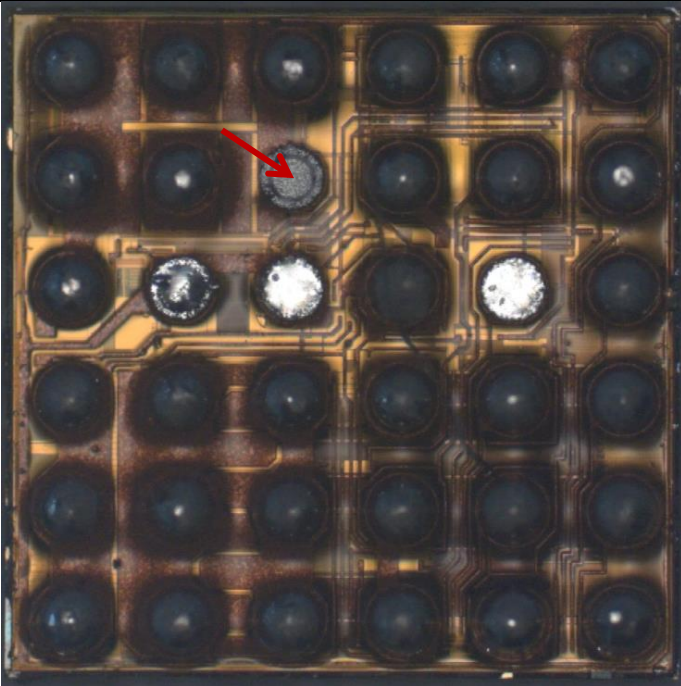


d. Pin to Pin curve trace of unit#1

Unit#2 are covered by underfill, cannot observe minor damage. One bond pad missed.

Some open fail was observed due to ball missed, it is false open fail.

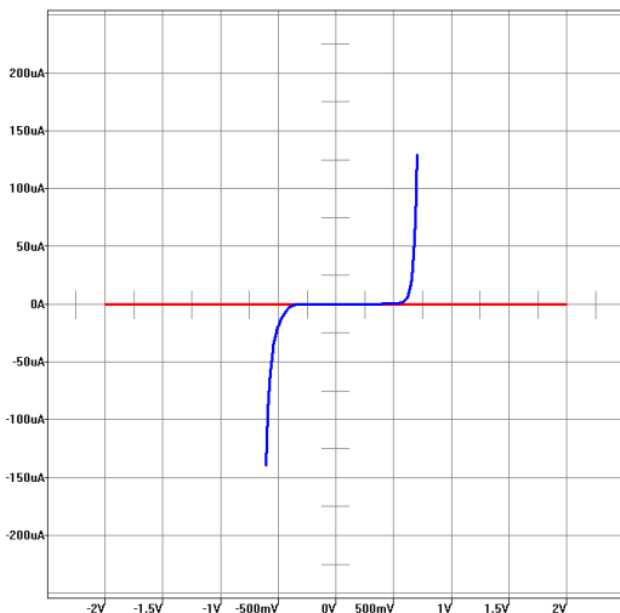
But also detect the minor leakage from curve trace pin to pin test.



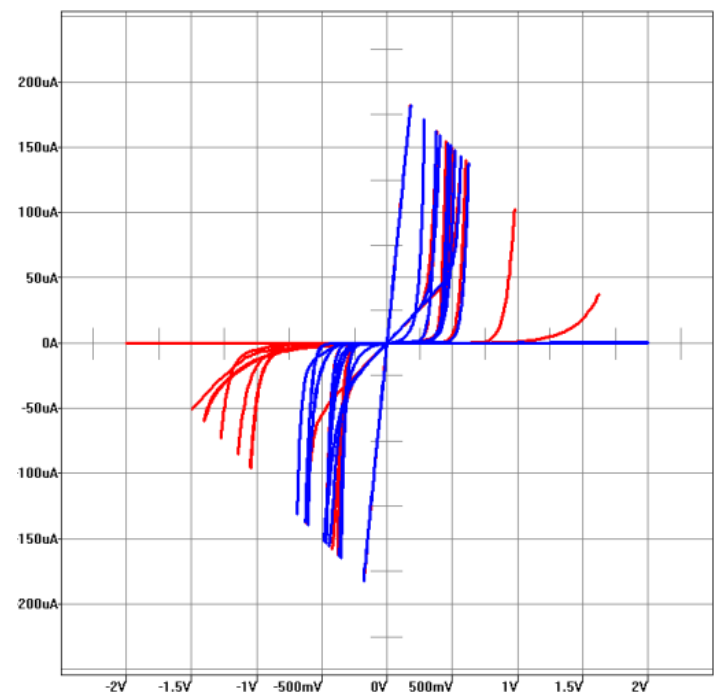
a. bottom view of unit#2, pad missed.



b. Bottom zoom view of unit#2



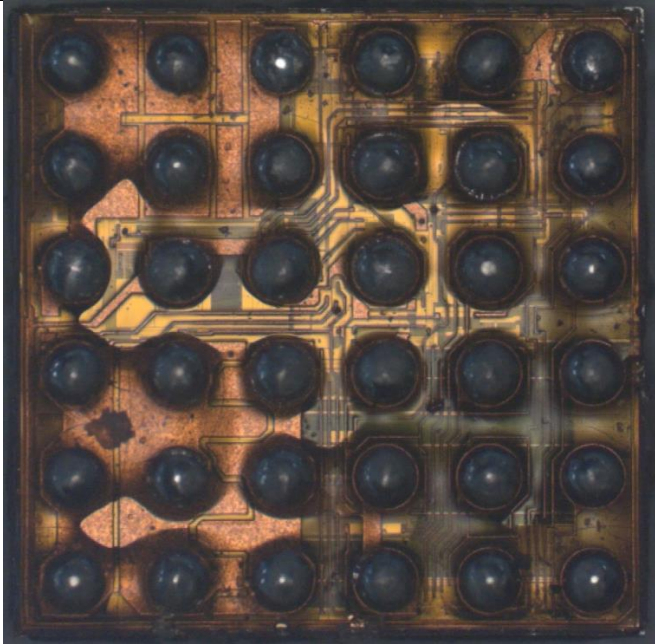
c. Pin to Gnd curve trace of unit#2
(due to ball missed, false open fail)



d. Pin to Pin curve trace of unit#2
Leakage fail was detected.

Unit#3 are covered by underfill, cannot observe minor damage..

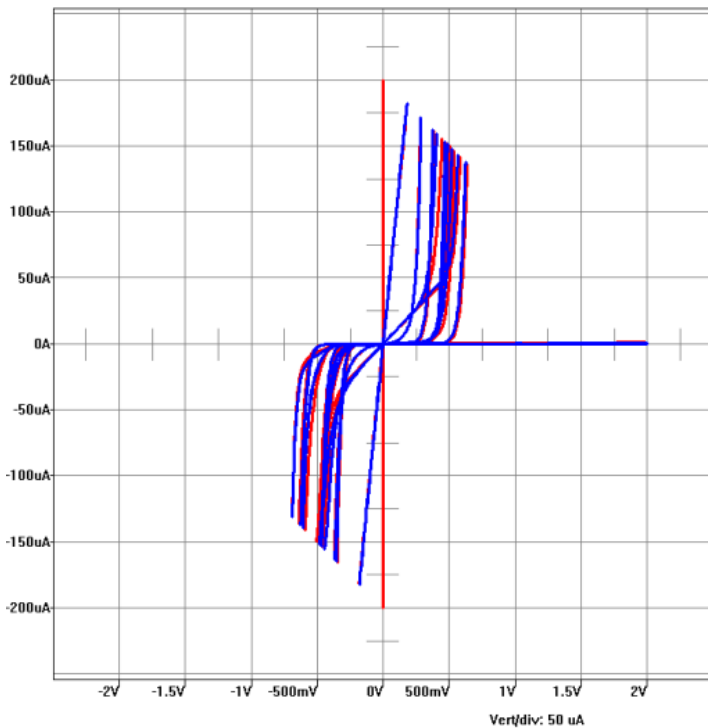
IV test observed short fails on E6 and F4



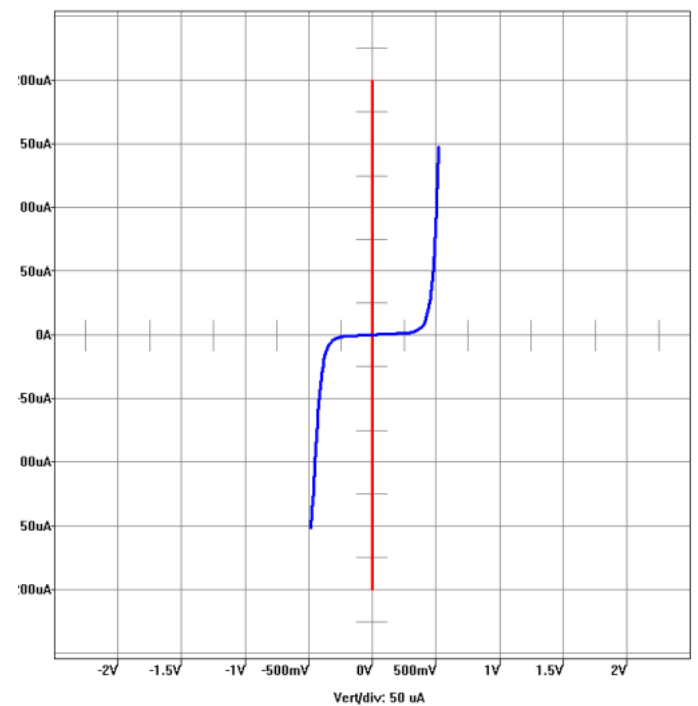
a. bottom view of unit#2



b. Bottom zoom view of unit#2



c. Pin to Pin curve trace of unit#3



d. short fails on E6 and F4 of unit#3

Conclusion:

Unit#1-3 are all covered by underfill, cannot observe minor package damage.

Unit#1 pass IV test.

Unit#2 is leakage fail, possible minor damage or EOS damage. And bond pad missed.

Unit#3 is short fail, possible EOS damage.

There is no symmetrical risk and we will continual monitor this device quality.