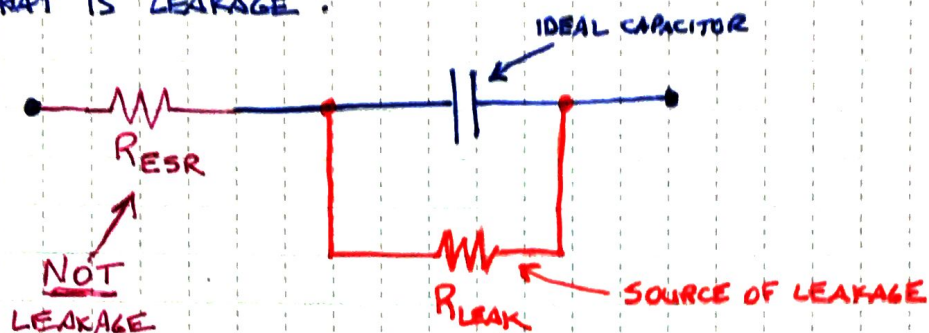


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CAPACITOR LEAKAGE TESTING WITH THE ANTIQUE WIRELESS ASSN. TESTER

- WHAT IS LEAKAGE ?



- LEAKAGE TESTING DOES NOT TEST ESR

- LEAKAGE IS THE DC CURRENT THAT GOES "THRU"
THE CAPACITOR DUE TO IMPERFECT INSULATOR

CAPACITORS CAN FAIL MANY WAYS

- OPEN / SHORT
- CAPACITANCE VALUE CHANGE
- HIGH ESR
- HIGH LEAKAGE
- MORE

- OFTEN YOU NEED DIFFERENT TESTERS TO CHECK ALL

CAPACITOR LEAKAGE NOTES:

- COMMON WITH OLDER / VINTAGE CAPACITORS
 - PAPER / WAX CAPACITORS
 - ELECTROLYTIC CAPACITORS
- AL ELECTROLYTIC & TANTALUM CAPS WILL NORMALLY HAVE SOME LEAKAGE
- FILM, MICA, CERAMIC, ETC. USUALLY HAVE MINIMAL LEAKAGE — AND USUALLY SPEC'D FOR "INSULATION RESISTANCE" INSTEAD OF LEAKAGE

TYPICAL LEAKAGE SPECIFICATIONS

- ALUMINUM ELECTROLYTICS - SPECS VARY BY MFR & TYPE
 - COMMON SPECS:
 - $< 3 * \sqrt{CV}$
 - $< 0.1 * CV + 40 \mu A$
 - $< 0.04 * CV + 100 \mu A$
 - $< 0.06 * CV + 10 \mu A$
 - ETC.
- } CAPACITANCE IN μF
LEAKAGE IN μA
USUALLY A DWELL TIME
VOLTAGE AT RATED
- TANTALUMS ARE SIMILAR, BUT USUALLY LOWER LEAKAGE
 - FILM CAPS - TYPICAL 1 TO 30 G Ω OR MORE