cmos028fdsoi Technology

metal resistor models

DK1.2_RF_mmW

Comparison with DK1.1_RF_mmW model(s)

Please use the bookmark to navigate

General information on metal resistor models

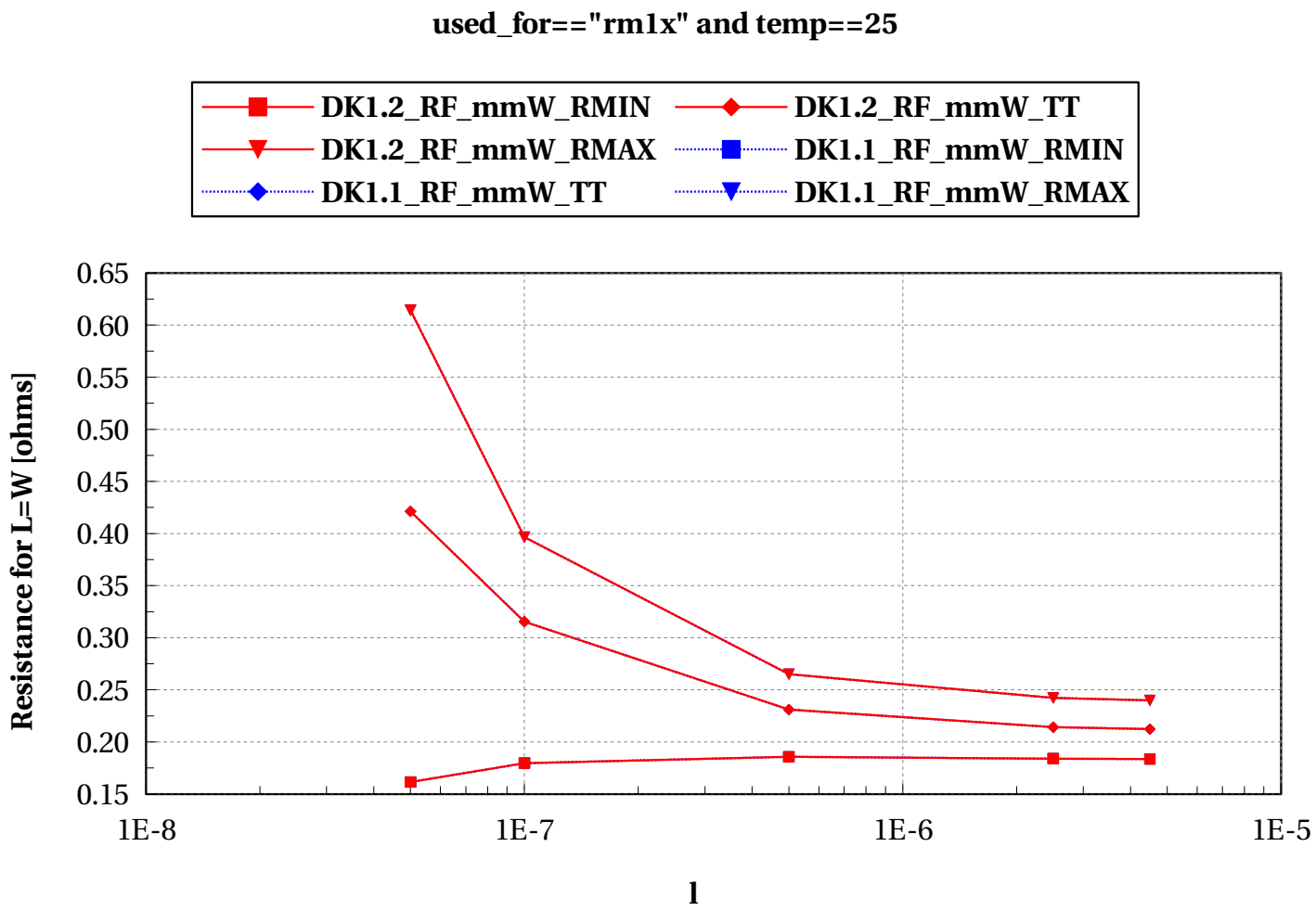
- Maximum supply voltage is - V.
- Validity domain is defined as follows:
  - ✔ Device temperature varies from -40 °C to 125 °C.

Output parameters definitions

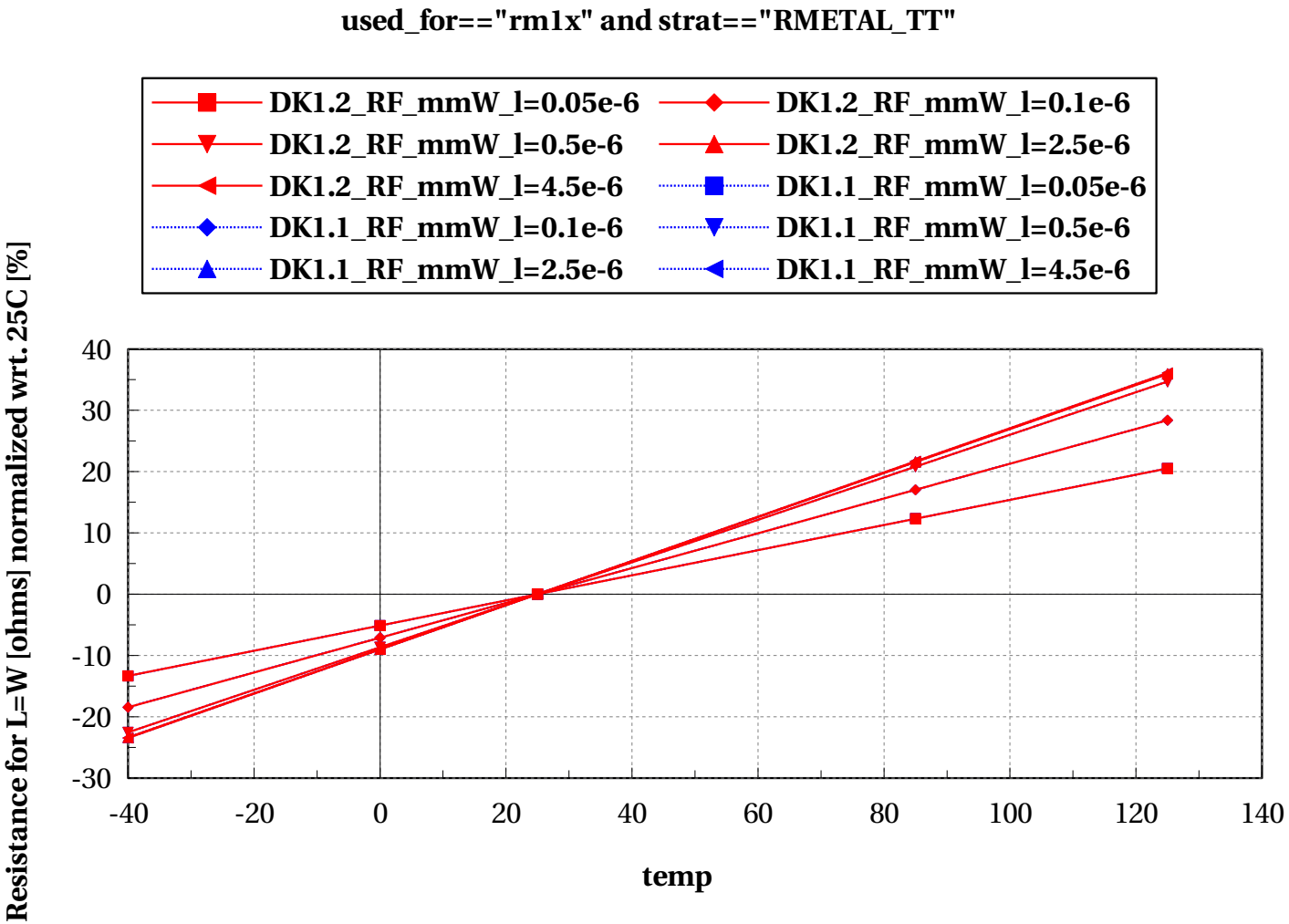
- Model(s): rm1x, rm2x, rm8x, rmlb
  - ✔ Rval : Resistance at Vres = 50e-3V

rm1x
Electrical characteristics scaling

rm1x, Resistance for L=W [ohms] vs l

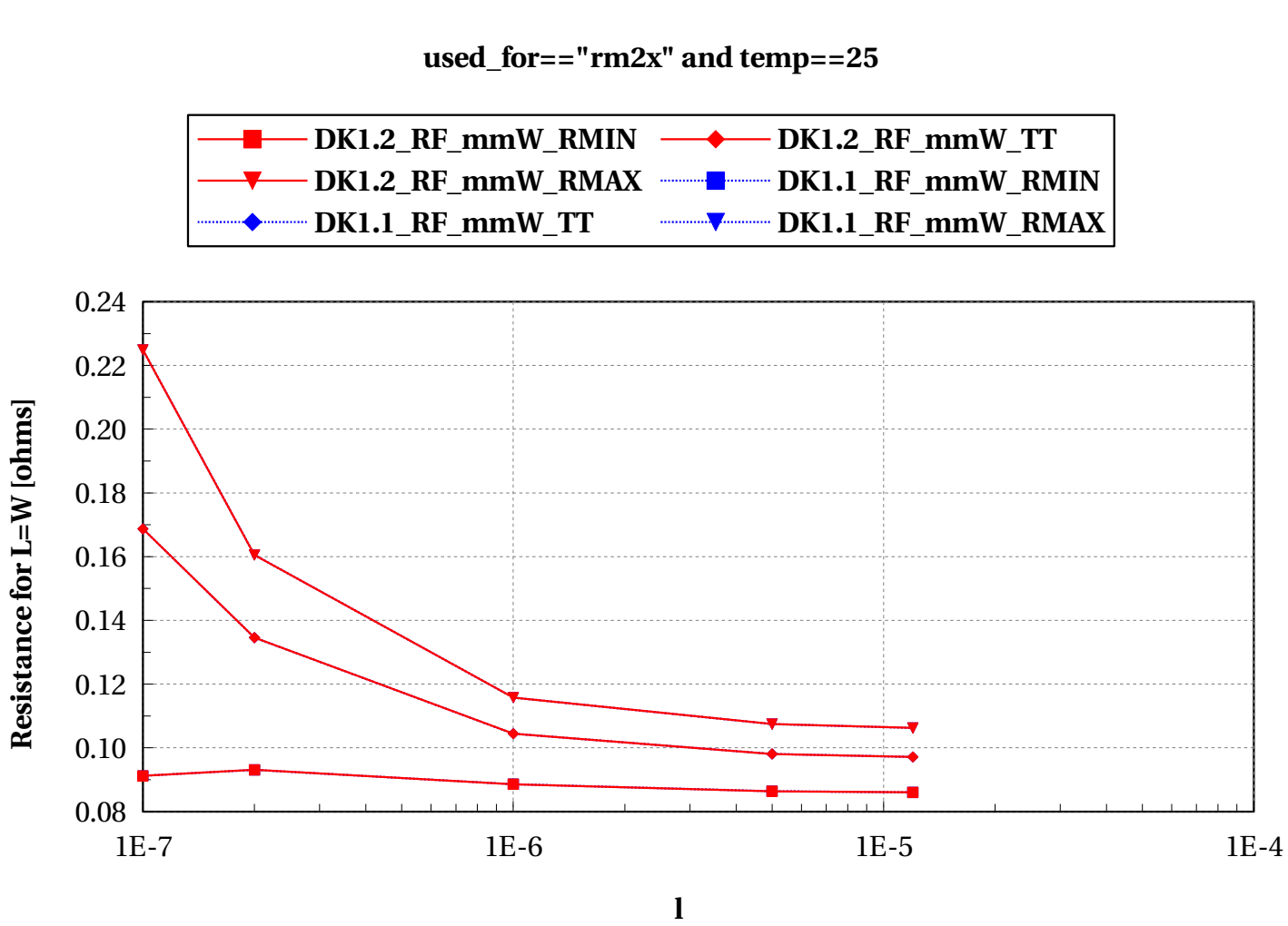


rm1x, Resistance for L=W [ohms] normalized wrt. 25C [%] vs temp

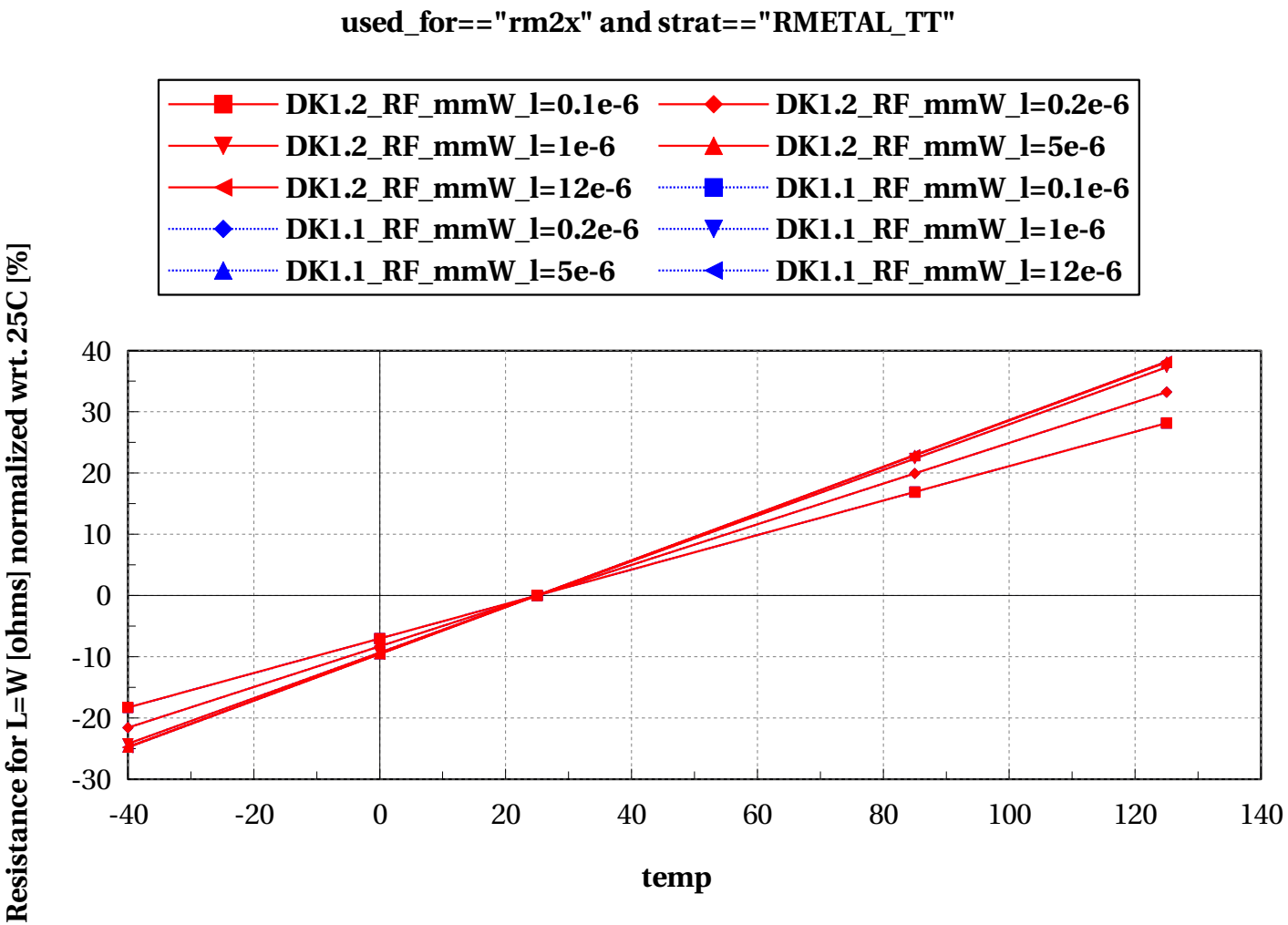


rm2x
Electrical characteristics scaling

rm2x, Resistance for L=W [ohms] vs l

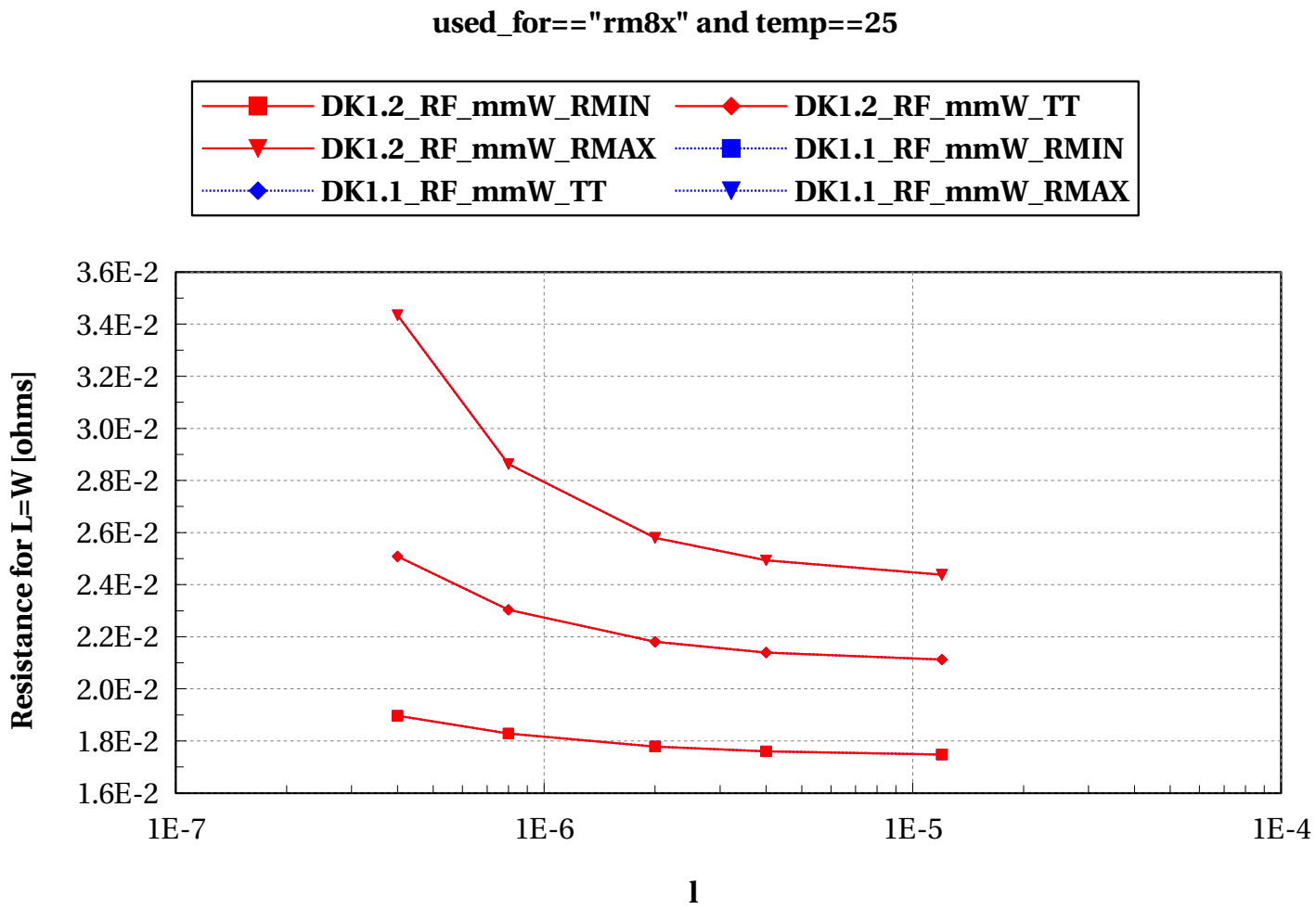


rm2x, Resistance for L=W [ohms] normalized wrt. 25C [%] vs temp

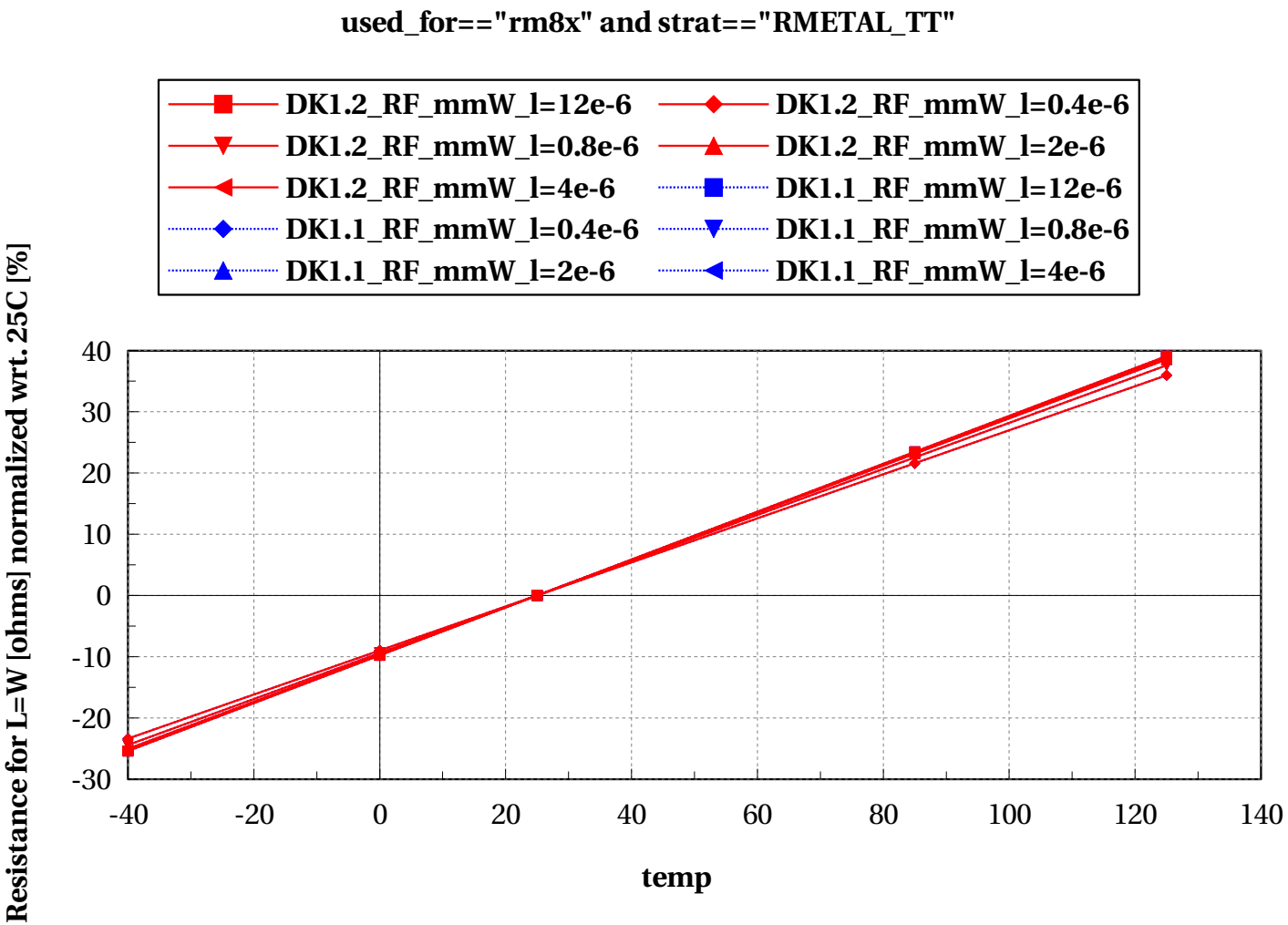


rm8x
Electrical characteristics scaling

rm8x, Resistance for L=W [ohms] vs l

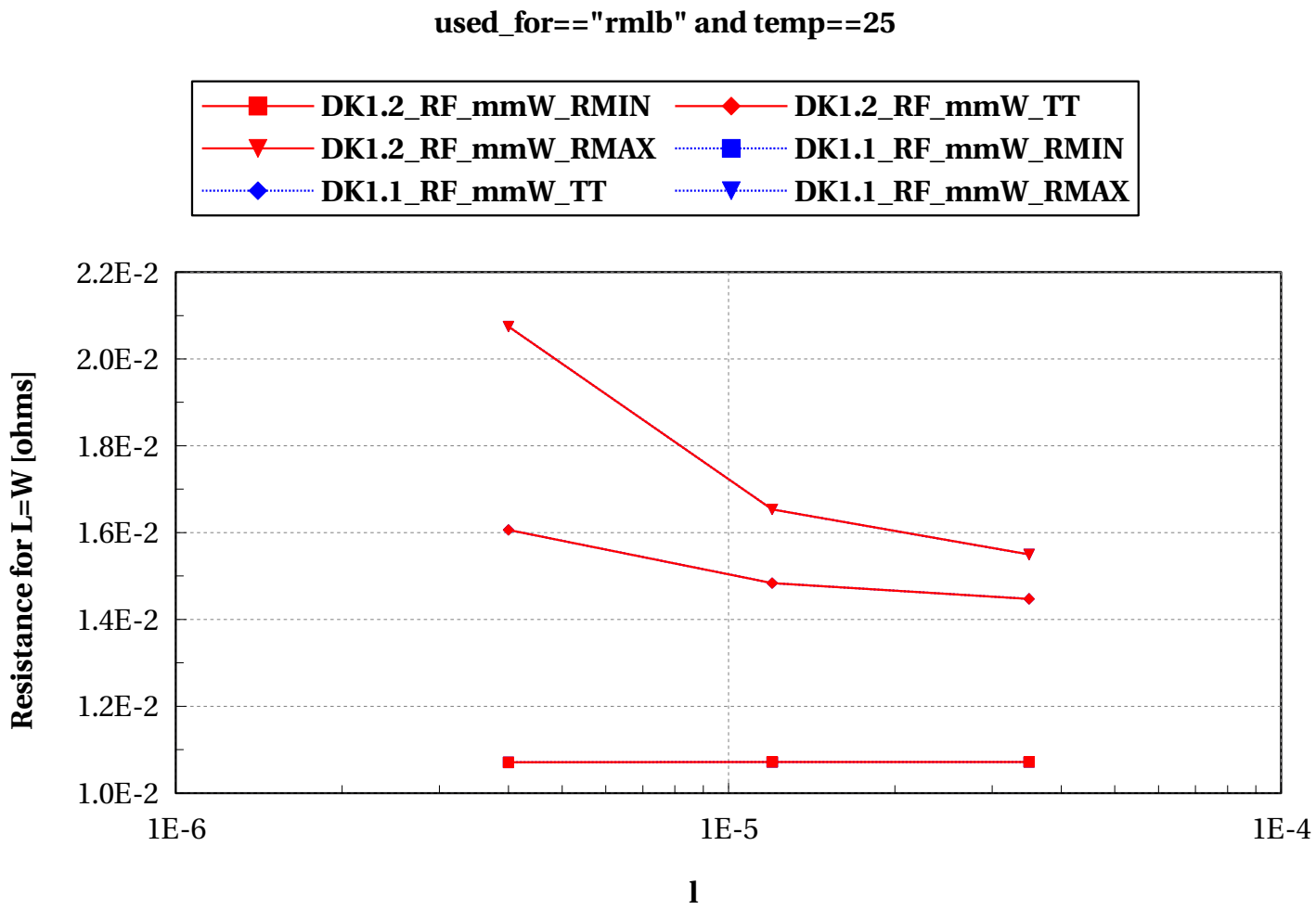


rm8x, Resistance for L=W [ohms] normalized wrt. 25C [%] vs temp

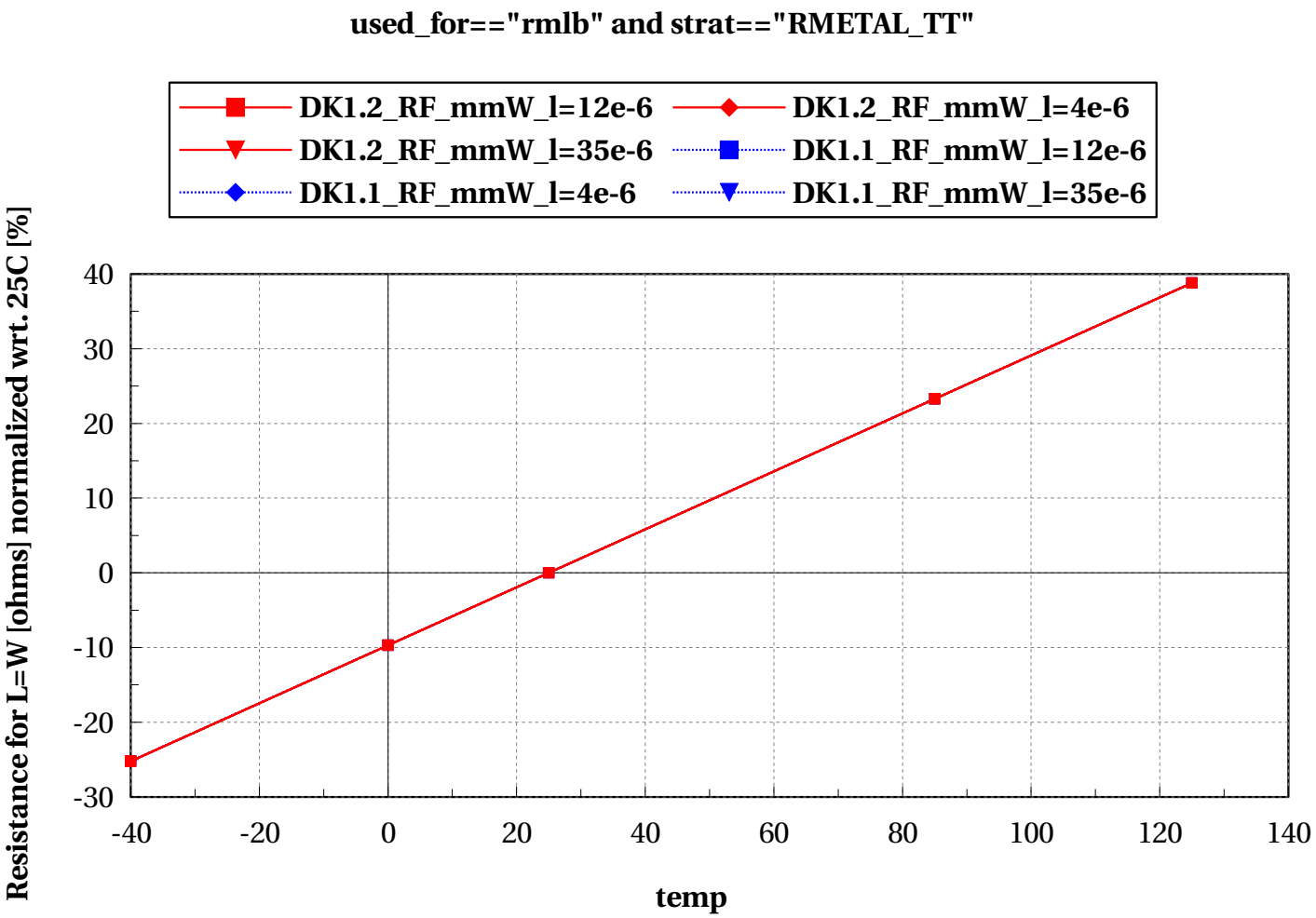


rmlb
Electrical characteristics scaling

rmlb, Resistance for L=W [ohms] vs l



rmlb, Resistance for L=W [ohms] normalized wrt. 25C [%] vs temp



Annex

Conditions of simulations

The simulations were done with SBenchLSF Alpha using Eldo simulator 2018.3.

- Model rm1x (DK1.2_RF_mmW)
  - ✔ Input Parameters
    - ✘ mc_runs = 1000
    - ✘ temp = 25 °C
    - ✘ vres = 50e-3 V
    - ✘ mc_sens = 0
    - ✘ sbenchlsf_release = Alpha
    - ✘ ams_release = 2018.3
    - ✘ model_version = 0.01
    - ✘ mc_nsigma = 3
  - ✔ Sweep Parameters
    - ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0
  - ✔ Extra parameters
- Model rm2x (DK1.2_RF_mmW)
  - ✔ Input Parameters
    - ✘ mc_runs = 1000

- ✘ temp = 25 °C
- ✘ vres = 50e-3 V
- ✘ mc_sens = 0
- ✘ sbenchlsf_release = Alpha
- ✘ ams_release = 2018.3
- ✘ model_version = 0.01
- ✘ mc_nsigma = 3

✔ Sweep Parameters

- ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0

✔ Extra parameters

● Model rm8x (DK1.2_RF_mmW)

✔ Input Parameters

- ✘ mc_runs = 1000
- ✘ temp = 25 °C
- ✘ vres = 50e-3 V
- ✘ mc_sens = 0
- ✘ sbenchlsf_release = Alpha
- ✘ ams_release = 2018.3
- ✘ model_version = 0.01
- ✘ mc_nsigma = 3

✔ Sweep Parameters

- ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0

✔ Extra parameters

● Model rmlb (DK1.2_RF_mmW)

✔ Input Parameters

- ✘ mc_runs = 1000
- ✘ temp = 25 °C
- ✘ vres = 50e-3 V
- ✘ mc_sens = 0
- ✘ sbenchlsf_release = Alpha
- ✘ ams_release = 2018.3
- ✘ model_version = 0.01
- ✘ mc_nsigma = 3

✔ Sweep Parameters

- ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0

✔ Extra parameters

● Model rm1x (DK1.1_RF_mmW)

✔ Input Parameters

- ✘ mc_runs = 1000
- ✘ temp = 25 °C
- ✘ vres = 50e-3 V
- ✘ mc_sens = 0
- ✘ sbenchlsf_release = Alpha
- ✘ ams_release = 2018.3
- ✘ model_version = 0.01
- ✘ mc_nsigma = 3

✔ Sweep Parameters

- ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0

✔ Extra parameters

● Model rm2x (DK1.1_RF_mmW)

- ✔ Input Parameters
  - ✘ mc_runs = 1000
  - ✘ temp = 25 °C
  - ✘ vres = 50e-3 V
  - ✘ mc_sens = 0
  - ✘ sbenchlsf_release = Alpha
  - ✘ ams_release = 2018.3
  - ✘ model_version = 0.01
  - ✘ mc_nsigma = 3
- ✔ Sweep Parameters
  - ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0
- ✔ Extra parameters

● Model rm8x (DK1.1_RF_mmW)

- ✔ Input Parameters
  - ✘ mc_runs = 1000
  - ✘ temp = 25 °C
  - ✘ vres = 50e-3 V
  - ✘ mc_sens = 0
  - ✘ sbenchlsf_release = Alpha
  - ✘ ams_release = 2018.3
  - ✘ model_version = 0.01
  - ✘ mc_nsigma = 3
- ✔ Sweep Parameters
  - ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0
- ✔ Extra parameters

- Model rmlb (DK1.1_RF_mmW)
  - ✔ Input Parameters
    - ✘ mc_runs = 1000
    - ✘ temp = 25 °C
    - ✘ vres = 50e-3 V
    - ✘ mc_sens = 0
    - ✘ sbenchlsf_release = Alpha
    - ✘ ams_release = 2018.3
    - ✘ model_version = 0.01
    - ✘ mc_nsigma = 3
  - ✔ Sweep Parameters
    - ✘ temp = -40.0, 0.0, 25.0, 85.0, 125.0
  - ✔ Extra parameters