Supporting Information

Thin TiO\(_x\) layer as a voltage divider layer located at the quasi-Ohmic junction in the Pt/Ta\(_2\)O\(_5\)/Ta resistance switching memory

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Fig. S1 (a) The I-V curves of the pristine w/Ti sample in the positive bias region, which were measured at temperatures ranging from 300 K to 330 K. (b) The replotted data in (a) according to Schottky emission formula. (c) The Ln (I/T\(^2\)) was plotted as a function of 1000/T at various
voltages that ranged from 0.72 V to 1.2 V to calculate the $E_{in}$, and the results are summarized in (d).

Fig. S2 (a) The I-V curves of the HRS for the w/Ti sample in the positive bias region, which were measured at temperatures ranging from 300K to 360 K. (b) The replotted data in (a) according to Schottky emission formula. (c) The $\ln(I/T^2)$ was plotted as a function of $1000/T$ at various voltages that ranged from 0.6 V to 1.0 V to calculate the $E_{in}$, and the results are summarized in (d).