

Figure Captions

Fig. 2-1 the top-gate structure of low temperature polycrystalline silicon thin film transistor without lightly doped drain

Fig. 2-2 the top-gate structure of low temperature polycrystalline silicon thin film transistor with lightly doped drain

Fig. 2-3 the stress setup of the top-gate structure of low temperature polycrystalline silicon thin film transistor without lightly doped drain (LDD)

Fig. 2-4 the waveform of the stress setup

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Fig. 2-6 the capacitance-voltage (C-V) measurement of the top-gate structure of low temperature polycrystalline silicon thin film transistor without lightly doped drain (LDD)

Fig. 3-1 metal-insulator-semiconductor capacitor

Fig. 3-2 energy-band diagram of ideal metal-insulator-semiconductor capacitor at $V=0$ for p-type semiconductor

Fig. 3-3(a) energy-band diagram of ideal metal-insulator-semiconductor (p-type semiconductor) capacitor when $V \neq 0$ ($V < 0$) for accumulation

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Fig. 3-3(c) energy-band diagram of ideal metal-insulator-semiconductor (p-type semiconductor) capacitor when $V \neq 0$ ($V > 0$) for inversion

Fig. 4-1(a) the initial $C_{GS}-V$ curves of an n-channel ELA TFT without LDD at different measurement frequency

Fig. 4-1(b) the initial $C_{GD}-V$ curves of an n-channel ELA TFT without LDD at different measurement frequency

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Fig. 4-6(b) The $C_{GD}-V$ curves of n-channel poly-Si ELA TFT without LDD at the 100KHz measurement frequency

Fig. 4-6(c) The $C_{GD}-V$ curves of n-channel poly-Si ELA TFT without LDD at the 1000KHz measurement frequency

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Fig. 4-10(b) the $C_{GD}-V$ curves of an n-channel ELA TFT with LDD at the 100KHz measurement frequency

Fig. 4-10(c) the $C_{GD}-V$ curves of an n-channel ELA TFT with LDD at the 1000KHz measurement frequency

Fig. 4-11(a) the $C_{GS}-V$ curves of an n-channel ELA TFT with LDD at the 10KHz measurement frequency

Fig. 4-11(b) the $C_{GS}-V$ curves of an n-channel ELA TFT with LDD at the 100KHz measurement frequency

Fig. 4-11(c) the $C_{GS}-V$ curves of an n-channel ELA TFT with LDD at the 1000KHz measurement frequency

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Table Captions

Table 3-1 electrical parameters variation correspond to possible degradation reason

Table 4-1 the subthreshold swings of poly-Si TFTs without and with LDD after dynamic stress

