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(54) **Title**: METHOD OF PROVIDING A FLEXIBLE SEMICONDUCTOR DEVICE AT HIGH TEMPERATURES AND FLEXIBLE SEMICONDUCTOR DEVICE THEREOF

(57) **Abstract**: Some embodiments include a method of providing a semiconductor device. The method can include: (a) providing a flexible substrate; (b) depositing at least one layer of material over the flexible substrate, wherein the deposition of the at least one layer of material over the flexible substrate occurs at a temperature of at least 1800C; and (c) providing a diffusion barrier between a metal layer and an a-Si layer. Other embodiments are disclosed in this application.