Figure 4.21 I–V curve of the JAC-M6SR-3 cell modeled with constant temperature (25°C) and variable irradiance.
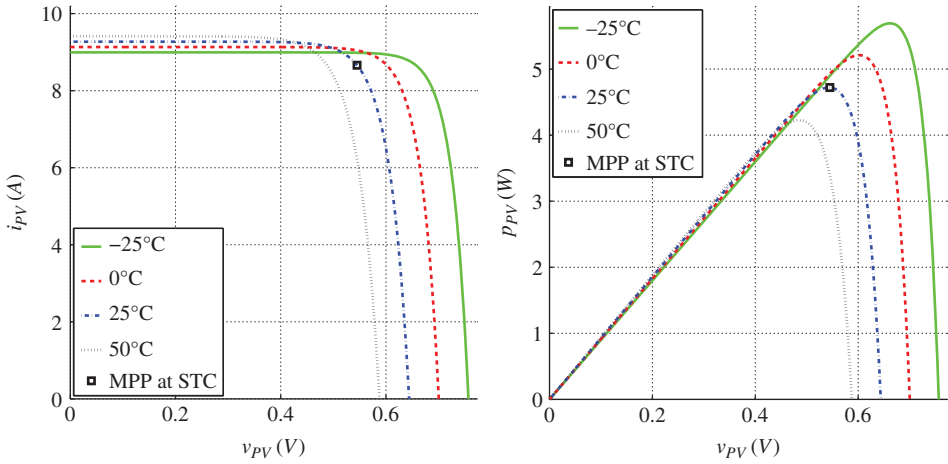

Figure 4.22 I–V curve of JAC-M6SR-3 cell modeled with constant irradiance (1000 W/m²) and variable temperature.

modeling process ultimately selected SSDM2 to achieve zero deviation at the MPP. For the JAC-M6SR-3 cell, the process stops at SSDM1 since the model parameters are physically meaningful. The SSDM1 output for JAC-M6SR-3 with changes in solar irradiance and temperature are shown in Figures 4.21 and 4.22, respectively. If the values of D_{MPP} are insignificant, the ISDM can be adopted for both cell examples.

4.5 Complete Single-diode Model

Most product datasheets provide the I–V and even the P–V curve in low-resolution figures, which serve as a basic reference for the output characteristics. The low