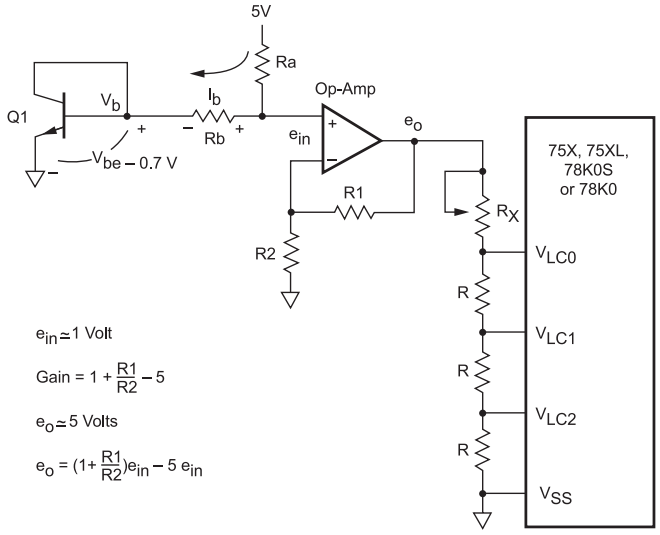
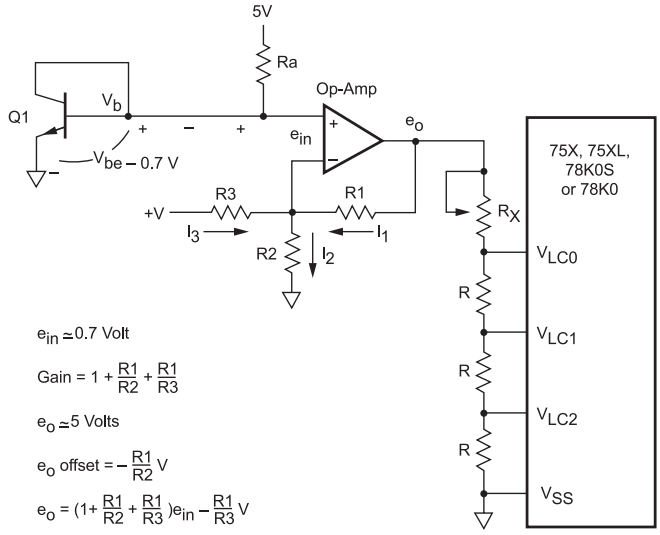
利用NEC78K0/K0s芯片作LCD设计时的温度补偿

Figure 3-7. Temperature Compensation Using an Op-Amp

(a) Static Temperature Compensation



(b) Multiplexed LCD Temperature Compensation



The circuit works as follows. When the ambient temperature T_A decreases, V_b increases by the temperature coefficient of the transistor's base-emitter junction, typically a negative value:

$dV/dT = -2\ mV/°C.$

An increase in V_b increases e_{in}, which increases the voltage output of the amplifier by the amplifier's gain, thereby raising the voltage source to the LCD resistor ladder. This results in increased voltage drive from the LCD controller, thereby raising the RMS voltage values from the