

Thermoelectric cooler contains semiconductor thermocouples, each of which includes two semiconductor branches of n-type and p-type conductivity connected to each other by electrically conductive junction plates. Each branch has a current lead and contacts for connection to an external circuit. The n-type and p-type semiconductor branches form thermocouples of different heights and make contact with each other via their side surfaces through an electrically insulating layer with high thermal conductivity.