

ABSTRACT

ELECTRICAL DEVICE CONTAINING POSITIVE TEMPERATURE COEFFICIENT RESISTOR COMPOSITION AND METHOD OF MANUFACTURING THE DEVICE

A positive temperature coefficient (PTC) resistor composition, comprising:

(a) about 3% to about 75% by weight of a binder resin, (b) about 2% to about 70% by weight of a temperature activatable semicrystalline polymer, which is a thermoplastic elastomer (TPE) that melts at a relatively narrow temperature range to change from a crystalline state to an amorphous state, (c) about 10% to about 80% by weight of an electrically conductive material in finely particulated form selected from the group consisting of silver, graphite, graphite/carbon, nickel, copper, silver coated copper, and aluminum, (d) about 0.01% to about 80% by weight of solvent material for the composition.

FIGURE 1