

ABSTRACT

Described is a ceramic composition of the formula $(M^{1}_{1-x} \cdot N^{1}_x)(P^{2}_{1-y-z} \cdot N^{2}_y \cdot Al_z)O_3$ where M^1 is one or more selected from the group 3A elements of the Periodic Table excluding La, N^1 is one or more selected from the group 2A elements of the Periodic Table, P^2 is one or more selected from the elements of the groups 4A, 5A, 6A, 7A and 8 of the Periodic Table whose oxides exhibit p-type characteristics, and N^2 is one or more selected from the elements of the groups 4A, 5A, 6A, 7A and 8 whose oxides exhibit n-type characteristics,

wherein x , y and z are larger than 0 and smaller than 1 and $0.001 \leq x/(1-y-z) < 0.20$, $0.05 \leq y/(1-y-z) \leq 0.80$ and $0 < z/(1-y-z) \leq 0.90$. Thermistor elements (1) made from the above ceramic composition are usable within a broad temperature range of 300-1100°C have a stable resistance in oxidizing and reducing atmospheres, can prevent deterioration of lead wires, and have superior stability at high temperatures.

Figure 1

This Sheet Has Been Replaced

