

ABSTRACT

The object of the present invention is to provide a ferroelectric thin film that has the best range of the composition where an excellent remanent polarization characteristic is obtained and, at the same time, has a bismuth type
5 layered crystal structure with high reliability.

The ferroelectric thin film of the present invention is a ferroelectric thin film of layered crystal structure comprising at least tantalum and oxygen (O) among carbon, Strontium (Sr), bismuth (Bi), tantalum (Ta), and niobium (Nb), characterized by assuming the composition formula to be $\text{SrBi}_y\text{Ta}_2\text{O}_{9\pm d}$ or
10 $\text{Sr}_x\text{Bi}_y(\text{Ta,Nb})_2\text{O}_{9\pm d}$ (provided that, $0.90 \leq x < 1.00$, $1.70 < y \leq 3.20$, and $0 \leq d \leq 1.00$) and the carbon content be 5at% or less.



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