

Table 1. Major Pyroelectric Material

Material	Curie Temp. Tc(°C)	Specific Inductive Capacity	Coefficient of Pyroelectricity (C.cm <sup>-2</sup> .K <sup>-3</sup> )	Specific Heat at Constant Volume c' (q.cm <sup>-3</sup> .K)	$\lambda/\epsilon \cdot c'$ (C.cm.J)
TGS (Inorganic)	49	35	4.0 x 10 <sup>-8</sup>	2.5	4.6 x 10 <sup>-10</sup>
LiTaO <sub>3</sub> (Single crystal)	618	43 54	1.8 2.3x10 <sup>-8</sup>	3.2	1.3 1.35x10 <sup>-10</sup>
PZT (Ceramics)	200 270	380 1800	1.8 2.0x10 <sup>-8</sup>	3.0	0.2 0.4x10 <sup>-10</sup>
Deformed PZT (Ceramics)	220	380	17.9x10 <sup>-8</sup>	3.1	1.5x10 <sup>-10</sup>
LiNbO <sub>3</sub> (Single crystal)	1200	30	0.4 0.5x10 <sup>-8</sup>	2.8	0.4 0.6x10 <sup>-10</sup>
PbTiO <sub>3</sub> (Ceramics)	470	200	6.0x10 <sup>-8</sup>	3.2	0.94x10 <sup>-10</sup>
SBN (Single crystal)	115	380	6.5x10 <sup>-8</sup>	2.1	0.8x10 <sup>-10</sup>
PVDF (Organic Macromolecular)	120	11	0.24 0.4x10 <sup>-8</sup>	0.33	0.9 1.5x10 <sup>-10</sup>

Note: TGS: (NH<sub>2</sub>-CH<sub>2</sub>-COOH)<sub>3</sub>H<sub>2</sub>S<sub>2</sub>O<sub>2</sub>, Glycine Sulfate

PZT: (PbxZryTizO<sub>3</sub>)

Deformed PZT: [Pb(SnSb)<sub>3</sub>-PbTiO<sub>3</sub>-PbZrO<sub>3</sub>]

SBN: [Srx Bay Nb<sub>2</sub>O<sub>6</sub>] normally x=0.48, y=0.52

PVDF: Crystalline macro molecule of polyvinyl fluoride [(CH<sub>2</sub>-CF<sub>2</sub>)<sub>n</sub>] or PVE<sub>2</sub>

Pyroelectric Type Infrared Sensor

Type	Domestic Production	Import
Single crystal (LiTaO <sub>3</sub> )	Sanyo Electric Co., Ltd. Matsushita Denshi Buhin (Matsushita Giken)	Plessey Eltic
Ceramics (PZT)	Murata Mfg. Nihon Ceramic Horiba, Ltd.	Plessey Mullard
Organic (PVDF)	Matsushita Electric Industrial Co., Ltd. Matsushita Communication Industrial Co., Ltd.	