

(b) Market Trend

Since the statistical data on the piezoelectric device filter and buzzer industry are neither available at the industrial associations nor at the governmental agencies, the followings are the estimations obtained from interviews with major domestic manufacturers. PZT is the trade name for  $\text{PbTiO}_3\text{-PbZrO}_3$  developed by Vernitron Co. - former Clevite Co. - of U.S. Data include PZT and a product of the type later developed by Matsushita Denshi Buhin.

Piezoelectric Buzzer

(a) Volume

(unit: million pcs.)

Manufacturer	1982	1983	1984	1985 (Prospect)
Murata Mfg.	67	80	92	105
Matsushita Denshi Buhin	60	73	85	100
Kyocera	35	40	48	60
Sumitomo Electric Ind.	18	20	28	35
NGK Spark Plug	22	25	27	32
TDK	8	10	13	18
Others	5	7	12	20
Total	215	255	305	370

Note: Others include approximately 10 companies such as Fuji Electrochemical, Tohoku Metal Industries, Taiyo Yuden, Toko, Ltd. and Kobishi, etc.

(b) Value

(unit: million yen)

Manufacturer	1982	1983	1984	1985 (Prospect)
Murata Mfg.	1680	1970	2160	2370
Matsushita Denshi Buhin	1720	2000	2230	2500
Kyocera	375	425	500	600
Sumitomo Electric Ind.	1440	1500	1890	2275
NGK Spark Plug	1020	1105	1135	1280
TKD	105	125	165	215
Others	225	280	465	700
Total	6565	7405	8545	9940