

1. Application

This specification is applicable to ceramic discriminator CDBM450C24 use for communication equipment.

2. Electrical Characteristics

This discriminator must need following performance.

2-1) Anti-resonate frequency (Fa) : 450 ± 1.5 KHz.

2-2) Resonant Impedance (Ri): 70 ohms Max.

2-3) $\Delta F(Fa-Fr)$: 48 ± 5.0 KHz.

Fr: resonant frequency

2-4) Capacitance (at 1 kHz) : $550 \text{ pF} \pm 20\%$.

3. Environmental Test**3-1) Temperature Characteristics**

At the temperature range of $25 \pm 5^\circ\text{C}$, the discriminators shall meet the electrical properties in item 2-1~2-4, and at $-20 \sim +80^\circ\text{C}$ the Anti-resonant frequency shall not very more than ± 2.0 kHz.

3-2) Vibration

The discriminators shall suffer no mechanical damage and meet the 2-1~2-4 electrical Characteristics after being vibrated with a sine wave motion having an amplitude of 1.0 mm from 10 to 55KHz per 1 minute, applied for 30 minutes in three different directions (x,y,z).

3-3) Humidity

The discriminators shall be place in a humidity chamber at 90~95% relative humidity and $40 \sim 45^\circ\text{C}$ for a period of minimum 8 hours. The discriminators shall be left for the period of more than 24 hours at the room temperature after its removal from the humidity chamber. The discriminators shall meet the 2-1~2-4 electrical characteristics and the appearance of discriminators is to be normal.

3-4) Dropped Shock

The discriminators shall suffer no mechanical damage and meet the 2-1~2-4 electrical characteristics outlined on this specification after being dropped 3 times to concrete floor from the 30 cm height.

3-5) Solder ability

The terminal surface shall be covered over 3/4 by the solder after dipped the leads into $230 \pm 5^\circ\text{C}$ solder pot containing (Sn 63% Pb 37%) molten alloy for 3 ± 1 seconds.

3-6) Soldering Heat-Resistance

The discriminators shall be assembled to the 1 mm “through-hole” P.C. bored and placed in solder solution (Sn63% Pb37%) at $250 \pm 10^\circ\text{C}$ for duration of 3 ± 1 seconds. After removal from the solder solution chamber, the discriminators may be cleaned with chlorothene and left for more then 24 hours at the room

temperature. The discriminators shall meet the 2-1~2-4 electrical characteristics are to be normal.

3-7) Lead Strength

The discriminators shall suffer no mechanical damage and meet the 2-1~2-4 electrical characteristics outlined on this specification after static load of 1.0 kg for 1 minute is applied in the direction of the insertion side.

3-8) Temperature

The discriminators shall be held at each cycle consist of three temperature levels(-20,+25,+80°C) for a period of each 30 minute and repeated 3 cycles. After the test the discriminators may be left for more than 24 hours at the room temperature. The discriminators shall meet the 2-1~2-4 electrical characteristics outlined on this specification and the appearance of discriminators is to be normal.

4. Appearance

4-1) Appearance and dimension may conform to Fig.1

4-2) Identification

The following shall be permanently and legibly marked.

5. Dimensions (unit mm)

Fig 1.

