

LT10.7MA5

2. CUSTOMER'S RELEVANT MATTERS

- 2-1 Customer's Part No. : LT10.7MA5
 2-2 Customer's specification No. :

3. ELECTRICAL CHARACTERISTICS

Table 1

Item	LT10.7MA5	Note
3-01 Nominal Frequency (FT)	10.700MHz	
3-02 Center Frequency (Fo)	10.700MHz ± 30kHz (Red)	
3-03 3 dB Bandwidth (ΔF-3dB)	280kHz ± 50 kHz	
3-04 20 dB Bandwidth (ΔF-20dB)	≤ 600 kHz	
3-05 Insertion Loss (Bo)	≤ 6 dB	Peek
3-06 Ripple (ΔB)	≤ 1 dB	3 dB
3-07 Spurious Response (Bp)	≥ 40 dB	9 to 12 MHz
3-08 Withstanding Voltage	DC 50V, 1 min.	
3-09 Insulation Resistance	≥ 100 M Ω	DC 100V
3-10 Input / Output Impedance	330 Ω	

4. DIMENSIONS AND TEST CIRCUIT

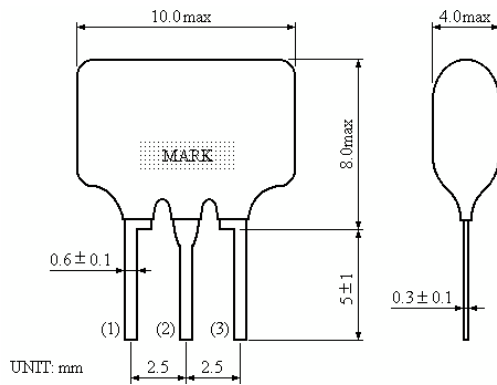


Fig 1. Appearance and Dimensions

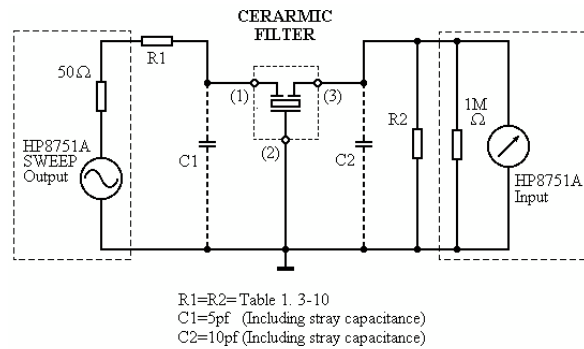


Fig 2. Test Circuit

5. MEASUREMENT

LT10.7MA5
Low Spurious Ceramic Filter

SPECIFICATION

Table 2

Item	Requirement
5-1 Test Circuit	It shall be measured by the test circuit as shown in figure 2.
5-2 Measurement Condition	Standard condition: (1) Temperature $25 \pm 3^{\circ}\text{C}$ (2) Relative Humidity $60 \pm 10\%$. The measurement shall be in the temperature range of 5°C to 35°C and the relative humidity range of 45% to 85% when there are no faults.

6. MECHANICAL STRENGTH

Table 3

Item	Requirement
6-1 Random Drop	It shall be measured after 3 times random drop from the height of 1m on concrete floor. It no visible damage and the measured values shall fulfill the specification of Table 5.
6-2 Vibration	It shall be measured after being applied vibration of amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 1 hour. The measured values shall fulfill the specification of Table 5.
6-3 Resistance to Soldering Heat	Lead terminals are immersed up to 1.5 mm from it's body in solder of $260 \pm 5^{\circ}\text{C}$ for 10 ± 1 seconds. And then it shall be measured after being placed in natural condition for 1 hour. The measured values shall fulfill the specification of Table 5.
6-4 Terminal Pulling	After force 10 seconds of 500g applied to each terminal in axial direction. Then It shall be measured. The values shall fulfill the specification of Table 5 and it no visible damage .
6-5 Terminal Bending	After lead terminals shall be fixed at 2 mm from it's body .they shall be folded up to 90° from their axial direction and folded back to -90° .Then folded back to their axial direction. The speed of folding shall be each 3 seconds. It shall be measured. The values shall fulfill the specification of Table 5 and no visible damage.
6-6 Solder ability	Lead terminals are immersed in rosin for 5 seconds and then immersed in soldering bath of $260 \pm 5^{\circ}\text{C}$ for 5 ± 0.5 seconds. The solder shall coat at least 90% of the lead terminal.

7. ENVIRONMENTAL CHARACTERISTICS

Table 4

Item	Requirement
7-1 High Temperature	After being placed in a chamber with $+85 \pm 2^{\circ}\text{C}$ for 500 hours and then being placed in natural condition for 1 hour. It shall be measured .The values shall fulfill the specification of Table 5.
7-2 Low Temperature	After being placed in a chamber with $-20 \pm 2^{\circ}\text{C}$ for 500 hours and then being placed in natural condition for 1 hour. It shall be measured. The values shall fulfill the specification of Table 5.
7-3 Humidity	After being placed in a chamber with 90 to 95 % R.H. at $+40 \pm 2^{\circ}\text{C}$ for 500 hours and then being placed in natural condition for 1 hour. It shall be measured. The values shall fulfill the

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	specification of Table 5.
7-4 Temperature Shock	It shall be placed at temperature of -25°C. After 30 minutes at this temperature. It shall be placed at temperature of +25°C. After 5 minutes at this temperature. It shall be immediately placed at temperature of +85°C. After 30 minutes at this temperature. It shall be returned to -25°C again. After 5 above cycles. It shall be placed in natural condition for 1 hour. Then it shall be measured .The values shall fulfill the specification of Table 5.
7-5 Temperature characteristics	It shall be measured within -20°C to +85°C temperature range. Temperature coefficient of frequency is: $\leq \pm 50\text{ppm}/^\circ\text{C}$

8. CHANGE OF CHARACTERISTICS

Table 5

Item	Limit Value	Note
8-1 3 dB Bandwidth (ΔF -3dB)	$\pm 25\text{kHz}$ max.	Referenced to the initial value.
8-2 20 dB Bandwidth (ΔF -20dB)	$\pm 40\text{kHz}$ max.	
8-3 Insertion Loss (Bo)	$\pm 2\text{ dB}$ max.	