Best No. 302147 ELECTRET CONDENSER MICROPHONE UNIT

MODEL ECM-10

1. SENSITIVITY
(COdB=1V/μbar, 1KHz.
VCC=4.5V. RL=1KΩ)

D: -68±3dB

2. CIRCUIT DIAGRAM

3. SPECIFICATIONS
1. IMPEDANCE: LOW
2. STANDARD VOLTAGE: 4.5 V
3. RANGE OF OPERATING VOLTAGE: 1.5 V TO 10 V
4. CURRENT DRAIN: 0.5mA Max
5. S/N RATIO: 40 db or more
6. MAXIMUM INPUT SOUND PRESSURE: 120 db SPL

4. DIMENSION (MM)

5. TYPICAL FREQUENCY RESPONSE CURVE

MAIN USAGE OF ECM UNITS: MICROPHONE, CASSETTE TAPE RECORDER, SONIC CONTROLLED TOY, INTERCOM SYSTEM, SONIC CONTROLLED SWITCH, TELEPHONE SET, DISCO LIGHT & ANSWERING MACHINE, ETC.
## 6. RELIABILITY TEST

<table>
<thead>
<tr>
<th>VIBRATION TEST</th>
<th>TO BE NO INTERFERENCE IN OPERATION AFTER VIBRATION 12HZ TO 50HZ FOR 1 MINUTE FULL AMPLITUDE, FOR 1.5 HOUR AT 3 AXISES.</th>
</tr>
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<tbody>
<tr>
<td>DROP TEST</td>
<td>TO BE NO INTERFERENCE IN OPERATION AFTER DROPPED TO CONCRETE FLOOR EACH ONE TIME FROM 1 METER HEIGHT AT 3 DIRECTIONS IN STATE OF PACKING.</td>
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</tbody>
</table>
| TEMPERATURE TEST       | a) AFTER EXPOSURE AT 55\(^\circ\) FOR 1 HOUR, SENSITIVITY TO BE WITHIN +/-3DB FROM INITIAL.  
                         | b) AFTER EXPOSURE AT -10\(^\circ\) FOR 1 HOUR, SENSITIVITY TO BE WITHIN +/-3DB FROM INITIAL.  
                         | (THE MEASUREMENT TO BE DONE AFTER 2 HOURS OF CONDITIONING AT 25\(^\circ\)C.) |
| HUMIDITY TEST          | AFTER EXPOSURE AT 40\(^\circ\)C AND 95% RH FOR 48 HOURS, SENSITIVITY TO BE WITHIN +/-3DB FROM INITIAL.  
                         | (AFTER 1 HOUR OF CONDITIONING AT 25\(^\circ\)C.) |
| TEMPERATURE CYCLE TEST | AFTER EXPOSURE AT -10\(^\circ\)C FOR 1 HOUR, AT 25\(^\circ\)C FOR 1 HOUR, AT 50\(^\circ\)C FOR 1 HOUR, AT 25\(^\circ\)C FOR 2 HOURS, 4 CYCLES, SENSITIVITY TO BE WITHIN +/-3DB.  
                         | (AFTER 2 HOURS OF CONDITIONING AT 25\(^\circ\)C.) |

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**REGARDING THE SOLDERING OPERATION:**

Each condenser microphone contains a FET within its case. Generally, semiconductors are easily weakened by over-heating, over-charge of voltage. Special caution is needed for proper soldering as follows.

1. Use 30W (or under) soldering iron and maintain 230\(^\circ\)-260\(^\circ\)C in operation.

2. Soldering should be accomplished within two seconds at each terminal so as not to be overheated.

3. Do not make a cavity at the surface of lead on the pattern plate. (A cavity may change the characteristics of condenser microphone.)