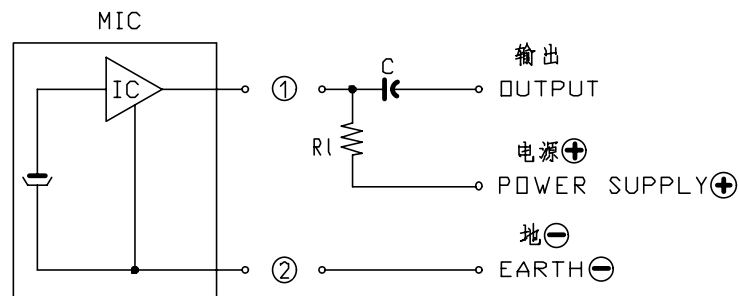


SPECIFICATION of MTW929A-622-3022

Electret Condenser Microphone (E.C.M)

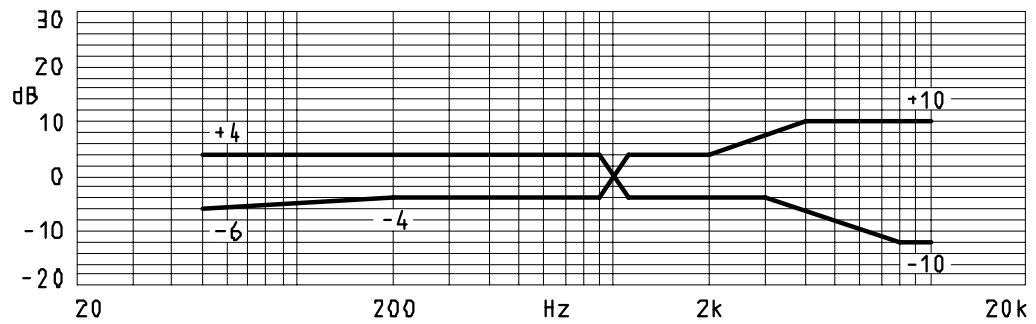
1.	Scope	This specification applies electret condenser microphone(E.C.M)
2.	Model No.	MTW929A-622-3022
3.	Operation Condition	
	3.1 Temperature	-30~+70°C
	3.2 Rel. Humidity	35%~85%RH
	3.3 Pressure	86~106KPa
	3.4 Environmental Noise	36dB(Maximum)
	3.5 Operation Voltage	+1~+10VDC
	3.6 Earth	⊖
4.	Electrical Characteristics	
	4.1 Standard Operation Voltage	+3.0VDC
	4.2 Impedance	2.2kΩ(Maximum)
	4.3 Current Consumption	0.6mA(Maximum)
	4.4 Sensitivity	(0dB=1V/0.1Pa,1KHz) -62±2dB
	4.5 Directivity	Omni-directional
	4.6 S/N Ratio	40dB(Minimum)(A-Curve at 1KHz,0.1Pa)
	4.7 Test Temperature	20°C±2°C
	Test Rel. Humidity	45%~65%RH



4.8 Schematic Diagram

$V_s=3.0V$
 $R_I=2.2k\Omega$
 $C=1\mu F$

4.9 Frequency Response

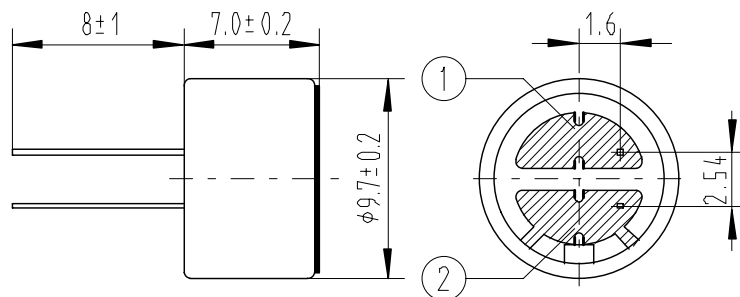


5. Mechanical Characteristics

5.1 Dimension $\phi 9.7 \times 7.0$

5.2 Mass $\leq 1.3g$

5.3 Dimensional Drawing



6.

Reliability Tests

The sensitivity to be within $\pm 3dB$ of initial sensitivity after 3 hours of conditioning at $20^\circ C$.

6.1Vibration	Frequency 1 10Hz~55Hz Amplitude ±0.15mm Frequency 2 55Hz~150Hz Acceleration 20m/s ² Change of Frequency 1octave/min 2 hrs in each of 3 axes
6.2Shocks	Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration 150m/s ² Number of Jolts 10 in each of 3 axes
6.3Dry Heat/Cold	70°C for 72 hrs -20°C for 72 hrs
6.4Damp Heat	90%RH,+40°C for 120 hrs
6.5Temperature Cycles	-20°C←→25°C←→70°C (2h) (1h) (2h) (1h) (2h) 10cycles
6.6Soak	Put E.C.M into 1 foot of water for 10 seconds, then transfer to oven at 60°C for 2 hours.
7.	Cautions
	7.1The soldering copper of a smaller type of less than 20W shall be applied.
	7.2The temperature of the working surface of the soldering copper shall be below 270°C.
	7.3E.C.M shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects. Said heat sink shall contact with each of E.C.M.
	7.4The soldering time for each terminal shall be 1~2 sec.
	7.5E.C.M may easily destroyed by the static electricity, and the countermeasure for eliminating the static electricity (the ground for soldering copper, for worktable and for human body) shall be executed.