

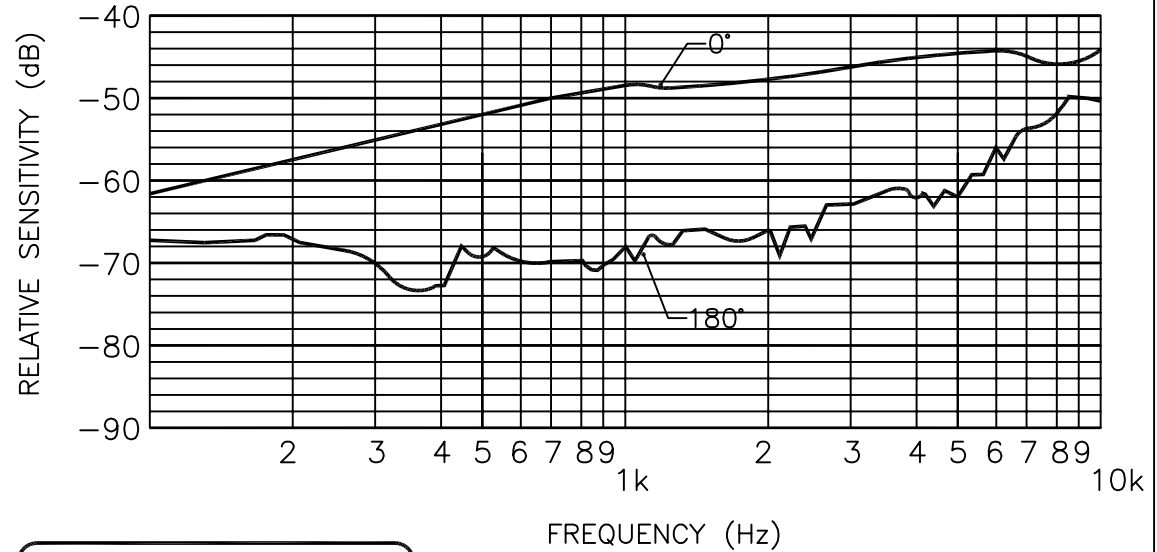
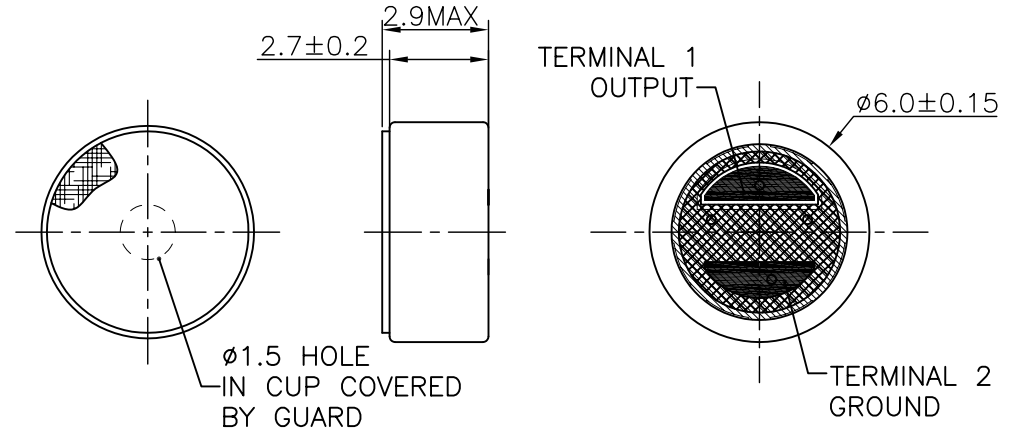
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MB6027USC-3

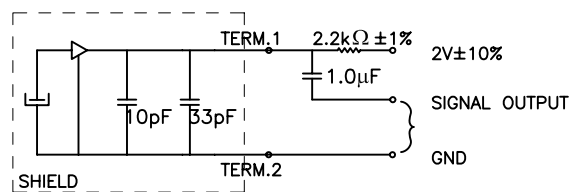
SHT 1.1 & 2.1

NOTES:

1. SENSITIVITY: $-47 \pm 3\text{dB}$ re $1.0\text{V/Pa(N/m}^2)$ AT 1kHz $22 \pm 5^\circ\text{C}$.
2. IMPEDANCE: LESS THAN $2.2\text{k}\Omega$ (1kHz).
3. STANDARD VOLTAGE: 2.0V .
4. RANGE OF OPERATING VOLTAGE: 1.5V TO 10.0V .
5. CURRENT DRAIN: 0.5mA MAX.
6. S/N RATIO: GREATER THAN OR EQUAL TO 50dB .
7. MAXIMUM INPUT SOUND PRESSURE LEVEL: 120dB .
8. BOTH 33pF & 10pF CAPACITORS ACROSS OUTPUT & GROUND.
9. SENSITIVITY REDUCTION: WITHIN -3dB AT 1.5V .
10. NOMINAL WEIGHT: LESS THAN 0.2g .
11. ELECTRET TYPE: CHARGED PLATE.
12. DIRECTIVITY: UNI; FRONT (0°) TO BACK (180°) RATIO OF SENSITIVITY AT 1kHz : AT LEAST 10dB .
13. P.C. BOARD TYPE: SOLDER.
14. OPERATING TEMPERATURE: -20°C TO $+70^\circ\text{C}$ (SENSITIVITY WITHIN OPERATING TEMPERATURE $\pm 10\text{dB}$).
15. STORAGE TEMPERATURE: -40°C TO $+80^\circ\text{C}$.
16. SENSITIVITY CHANGE DUE TO $+40^\circ\text{C}$ AT 95% RH FOR 240 HOURS: $\pm 3\text{dB}$.
17. SENSITIVITY CHANGE AFTER EXPOSURE TO -20°C (60 MINUTES), $+25^\circ\text{C}$ (60 MINUTES), $+70^\circ\text{C}$ (60 MINUTES), $+25^\circ\text{C}$ (60 MINUTES), 10 CYCLES TOTAL (THE MEASUREMENT TO BE DONE AFTER 6 HOURS OF CONDITIONING AT 20°C): $\pm 3\text{dB}$.
18. SENSITIVITY CHANGE AFTER -40°C FOR 72 HOURS: THE MICROPHONE MUST OPERATE WITHIN ITS SENSITIVITY SPECIFICATIONS.
19. SENSITIVITY CHANGE AFTER $+80^\circ\text{C}$ FOR 72 HOURS: THE MICROPHONE MUST OPERATE WITHIN ITS SENSITIVITY SPECIFICATIONS.
20. ESD PERFORMANCE: THE UNIT MUST OPERATE WITHIN ITS SENSITIVITY SPECIFICATION AFTER 10kV OF ESD USING THE HUMAN BODY MODEL.
21. SENSITIVITY CHANGE AFTER VIBRATING THE MICROPHONE WITH 10Hz TO 55Hz AT 1.52mm (PEAK TO PEAK) FOR 2 HOURS EACH AXIS: THE MICROPHONE MUST OPERATE WITHIN ITS SENSITIVITY SPECIFICATIONS.
22. SENSITIVITY CHANGE AFTER BEING DROPPED ON EACH AXIS FROM A HEIGHT OF 1m ONTO A METAL PLATE: THE MICROPHONE MUST OPERATE WITHIN ITS SENSITIVITY SPECIFICATIONS.
23. PULL STRENGTH: 0.5kgf FOR EACH SOLDER PAD.



TEST CIRCUIT:



RED CONTROLLED
KNOWLES ACOUSTICS

RELEASE LEVEL	ISSUE
RELEASED	A

KNOWLES ACOUSTICS
ITASCA, ILLINOIS, U.S.A.
KNOWLES ELECTRONICS CO., TAIPEI, TAIWAN, R.O.C.

SCALE:	5 : 1	DR. BY	DATE
DIMENSIONS IN MILLIMETERS		K.Z.	01/25/05
		CK. BY	DATE
		G.H.	01/25/05
TITLE:		APP. BY	DATE
MICROPHONE SPECIFICATIONS		S.Y.	01/25/05
		MB6027USC-3 SHEET 1.1 & 2.1	