



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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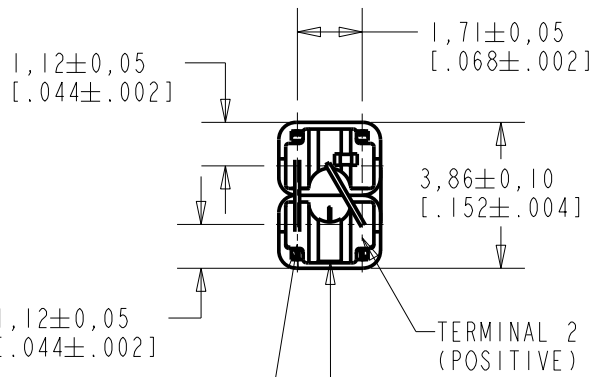
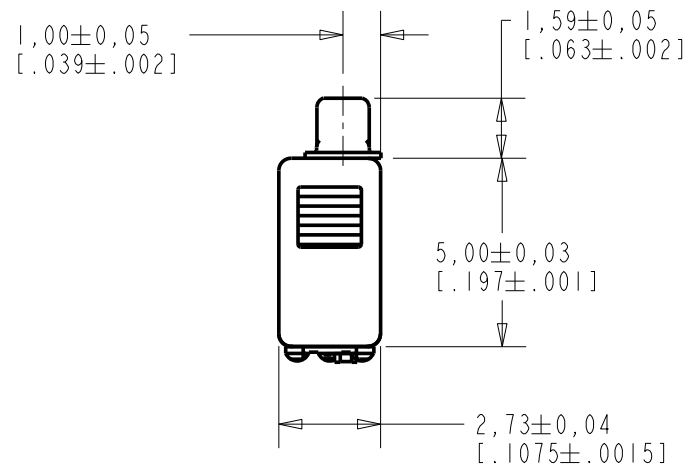
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



**TWFK-60173-000**  
SHT 1.1

NOTES:

- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.
- 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER.

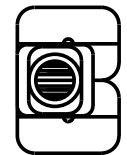
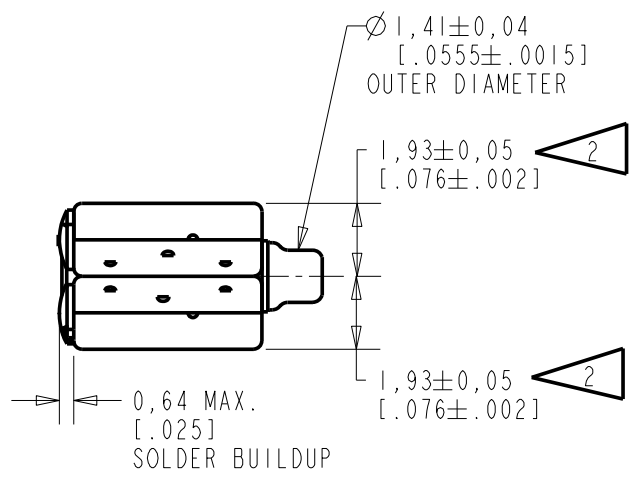


1,12±0,05 [.044±.002] (width)  
 1,12±0,05 [.044±.002] (width)  
 TERMINAL 1 (NEGATIVE)  
 TERMINAL 2 (POSITIVE)  
 TERMINAL 3 (ELECTRICALLY CONNECTED TO CASE)



SCALE 2:1

DIMENSIONS IN MILLIMETERS [INCHES]



Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Active	D
D	C10110633	12-11-09		

SCALE: 5:1	DR. BY: SJ	DATE: 5-27-08
DO NOT SCALE DRAWING	CK. BY: GJP	DATE: 6-2-08
TITLE: RECEIVER	APP. BY: GJP	DATE: 6-2-08
OUTLINE DRAWING	TWFK-60173-000 SHT 1.1	

**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

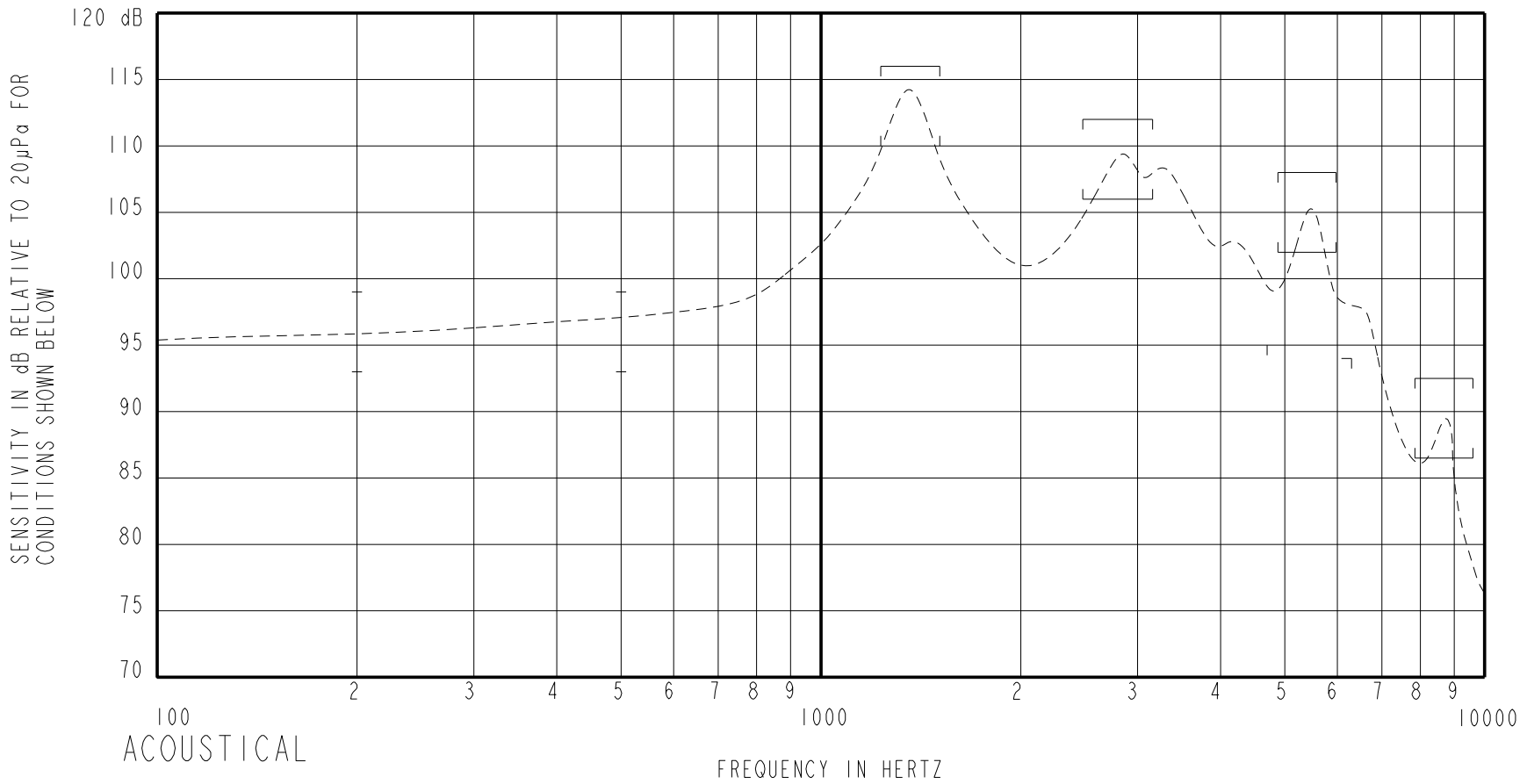
THE TWFK IS A CONJOINED FK AND WIDEBAND FK RECEIVER (BOTH MAGNETIC BALANCED ARMATURE RECEIVERS). CROSSOVER CAPACITOR AND CASE GROUND. NOTICE SPECIAL LIMITS AND DRIVE LEVEL IN THD TEST.

UMDAMPING

TWFK-60173-000  
SHEET 2.1

NOTE: SPECIFICATIONS FOLLOWED BY AN ASTERISK (\*) ARE 100% TESTED.

CONSTANT VOLTAGE DRIVE CONDITIONS (WITH VENT BLOCKED).



ACOUSTICAL

FREQUENCY IN HERTZ

SENSITIVITY\*

DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITION IN TABLE 3. NOMINAL SENSITIVITY AT 500Hz IS dB RELATIVE TO 20 µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 500HZ.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-4.0	-1.0	+2.0
500	-2.0	97.0	+2.0
1230-1510	+13.0	+16.0	+19.0
2480-3160	+9.0	+12.0	+15.0
4700	-2.0	---	---
4880-5970	+5.0	+8.0	+11.0
6300	-3.0	---	---
7850-9600	-10.5	-7.5	-4.5

MECHANICAL:  
PORT LOCATION: IS  
SOLER TYPE: SAC305

TEMPERATURE:  
OPERATING: SENSITIVITY AT 500Hz WILL NOT VARY BY MORE THAN ±3 dB FROM -17°C TO 63°C.  
STORAGE: -40°C TO 63°C.

TABLE 1

TOTAL HARMONIC DISTORTION\*  
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (V)	LIMIT (%)
690	0.350	0	5
460	0.50	0	5
690	0.50	0	6

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.350 V rms, 0 mA V DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	8mm X 1mm ID + 28mm X 1.5 ID EAR HOOK SIMULATOR + 25mm X 2mm ID TUBE + 18mm X 3mm ID TUBE
COUPLER CAVITY	2 CM <sup>3</sup> , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 60318-5)

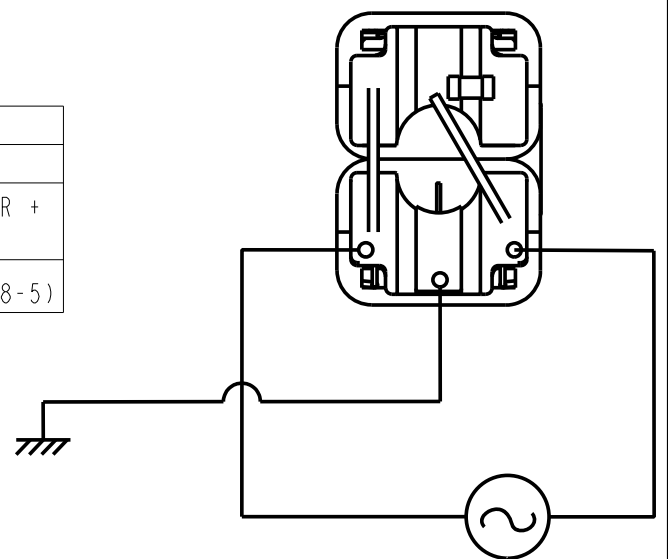
TABLE 3

ELECTICAL

DC RESISTANCE	400 Ohms ± 10%* 400 Ohms FK / 200 Ohms WBFK
IMPEDANCE @ 500 Hz	486 Ohms ± 15%*
IMPEDANCE @ 1kHz	706 Ohms ± 15%*

TABLE 4

ISOLATION: CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT.



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Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Active	D
D	C10110633	12-11-09		
WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION				
TITLE: RECEIVER			TWFK-60173-000	DR. BY DATE SJ 5-27-08
PERFORMANCE SPECIFICATION			SHT 2.1	CK. BY DATE GJP 6-2-08
				APP. BY DATE GJP 6-2-08