

[GEC] GREEN ELECTRONICS CO., LTD.

GEC 17C

FEATURES:

Case: Black Noryl

Pin: Tin-Plated Copper

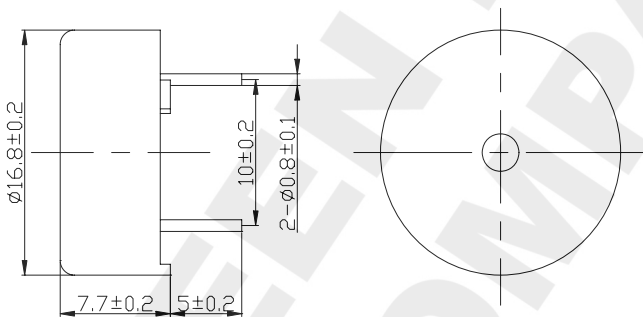
SPECIFICATIONS:

TYPE	UNIT	GEC 17C
◆ Min. Sound Output at 10cm	dB	85
Rated Voltage	V _{p-p}	9
Operating Voltage	V _{p-p}	1~30
Resonant Frequency	KHz	4.0±0.5
◆ Max. Current Consumption	mA	2
Capacitance at 1000Hz	pF	14000±30%
Operating Temperature	°C	-20~+70
Storage Temperature	°C	-30~+80
Weight	g	2

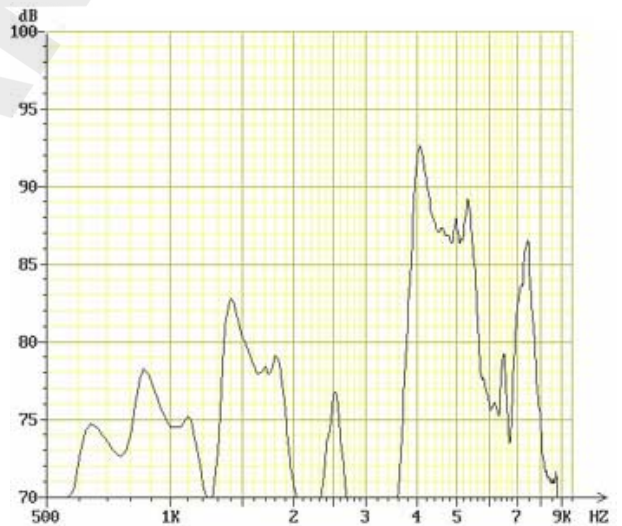
◆ Value applying at rated voltage

DIMENSIONS :

(Unit: mm)



FREQUENCY RESPONSE:



SPECIFICATIONS

CUSTOMER:

PRODUCT: PIEZO TRANSDUCER

MODEL NUMBER: GEC 17C

[GEC] GREEN
ELECTRONICS CO., LTD.



1.SPECIFICATIONS

GEC 17C

ITEMS	SPECIFICATIONS	CONDITIONS
RATED VOLTAGE	9Vp-p/4.0KHz	
MAX.ALLOWABLE INPUT VOLTAGE	30Vp-p	
RATED CURRENT	LESS THAN 2mA/9Vp-p/4.0KHz	APPLYING RATED VOLTAGE
CAPACITANCE	14000 \pm 30%pF	
TONE NATURE	SINGLE	
SOUND OUTPUT	MORE THAN 85dB	MIN.SOUND PRESSURE LEVEL AT 10CM/4.0KHz/9Vp-p SQUARE WAVE
FREQUENCY	4000 \pm 500Hz	MEASURING AT THE RATED VOLTAGE
PIN STRENGTH	MORE THAN 1Kg	
OPERATING TEMPERATURE	-30 ~ +70 $^{\circ}$ C	
DIMENSION	SEE FIG. 1 ATTACHED	
APPEARANCE		THERE SHOULD BE NO REMARKABLE STAINS, RUSTS OR FLAWS.

NOTE:

TEST SHOULD BE MADE UNDER THE CONDITIONS OF ROOM TEMPERATURE ($20 \pm 10^{\circ}\text{C}$), HUMIDITY ($60 \pm 20\%$) AND NORMAL ATMOSPHERIC PRESSURE. IN THE CASE, HOWEVER, THAT THE JUDGMENT IS QUESTIONABLE, THE TEST CONDITIONS ARE TO BE CHANGED TO ROOM TEMPERATURE $20 \pm 2^{\circ}\text{C}$, RELATIVE HUMIDITY 60-70% AND NORMAL ATMOSPHERIC PRESSURE.

2. INSPECTION STANDARD

GEC 17C

ITEM TESTED	SYM	STANDARD	AQL	LEVEL	INSPECTION BY MEANS OF	REMARKS
NO SOUNDING		9Vp-p/4.0KHz	0.25	II	EARS	AT EACH 1Vp-p, 9Vp-p 30Vp-p/4.0KHz THERE SHOULD BE NO NONSOUNDING, HARSH SOUND
SOUND OUTPUT		MORE THAN 85dB WHEN APPLYING RATED VOLTAGE	1	II	SOUND PRESSURE LEVEL METER	MIN. SOUND PRESSURE LEVEL AT 10CM/4KHz/9Vp-p SQUARE WAVE
CURRENT		LESS THAN 2mA WHEN APPLYING RATED VOLTAGE	0.65	I	MULTIMETER	
CAPACITANCE		14000±30%pF	0.65	I	LC METER	
BASIC FREQUENCY		4000±500Hz	1	II		
OUTER DIAMETER	A	Φ 16.8±0.2	1.5	S-3	ELECTRONICS CALIPERS	TO BE MEASURED AT THE MAXIMUM DIAMETER
CASE'S HEIGHT	B	7.7±0.2				
PIN'S LENGTH	C	5±0.5				TO BE MEASURED AT THE FOOT OF THE PINS
PIN'S PITCH	D	10±0.2				
PIN'S DIAMETER	E	Φ 0.8±0.1				
PIN'S STRENGTH		MORE THAN 1KG	0.65	S-3	TENSION GAUGE	BY PULLING EACH PIN
STATE OF SOLDER			1	II	MAGNIFYING GLASS	SOLDERED POINTS AND /OR COIL DISPOSITION SHOULD BE PROPER. (CROSSED COIL WIRE ARE NOT ACCEPTED)
RUST			1	II	EYES	ANY RUST SHOULD NOT BE ACCEPTED
STAIN			1.5	II	EYES	THERE SHOULD BE NO REMARKBLE STAINS
ADHESION			1.5	II	EYES	ADHESION SHOULD BE MADE SUFFICIENTLY AND THERE SHOULD BE NO OUTFLOW OF ADHESIVE AGENT.
OTHER APPEARANCE			1.5	II	EYES	

3. RELIABILITY TEST

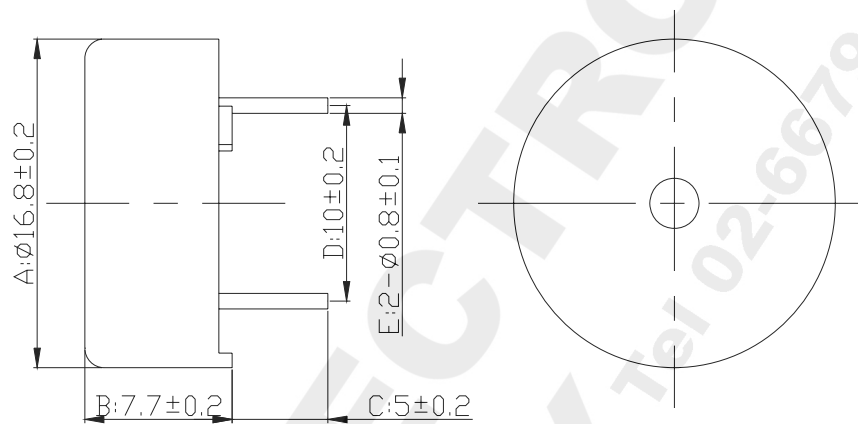
GEC 17C

ITEM	METHOD OF TEST	STANDARD
OPERATING TEMP.	-30 ~ +70°C	ALL SPECIFICATIONS MUST BE SATISFIED AFTER THE TEST
STORAGE IN HIGH TEMP	STORAGE IN 80°C TEST BOX FOR 96 HOURS THEN EXPOSE TO THE ROOM TEMP FOR 2 HOURS.	
STORAGE IN LOW TEMP	STORAGE IN -30°C TEST BOX FOR 96 HOURS THEN EXPOSE TO THE ROOM TEMP. FOR 2 HOURS.	
LIFE TEST IN THE ROOM TEMP	OPERATE THE TRANSDUCER CONINUOUSLY AT 5 SECONDS ON AND 5 SECONDS OFF FOR 500 HOURS AT RATED VOLTAGE.	
TEMPCYCLE TEST	MAKE THE TEST FOR 5 CYCLES WITHOUT APPLYING POWER AS FIG.3, THEN EXPOSE TO THE ROOM TEMP. FOR 2 HOURS.	
TEMP/HUMIDITY CYCLE TEST	MAKE THE TEST FOR 10CYCLES WITHOUT APPLING POWER AS FIG.4, THEN EXPOSE TO THE ROOM TEMP. FOR 2 HOURS	
VIBRATION TEST	MAKE THE TEST FOR THE DIRECTIONS OF X,Y,AND Z FOR 0.5 HOURS EACH (1.5 HOURS) TO-AND-FRO SWEEP TIME (FROM 10Hz TO 55 Hz AND THEN FROM 55Hz TO 10Hz) UNDER SINGLE AMPLIDE OF 0.75mm IS 1 MINUTE.	
DROP TEST	DROP A TRANSDUCER NATURAL-LY FROM THE HEIGHT OF 700mm ONTO SURFACE OF 10mm THICK WOODEN BOARD. TWO DIRECTIONS: THE UPPER AND SIDE OF THE TRANSDUCER ARE TO BE APPLIED FOR THIS DROP TEST RESPECTIVELY ONCE.	

DIMENSION

(UNIT: mm)

PART NUMBER: GEC 17C



NOTE:

PLEASE SEE A. B. C. D. E. IN THE SECOND VOLUME “SYM” IN PAGE 2

FIG. 1

FREQUENCY RESPONSE (typical curve of type GEC 17C)

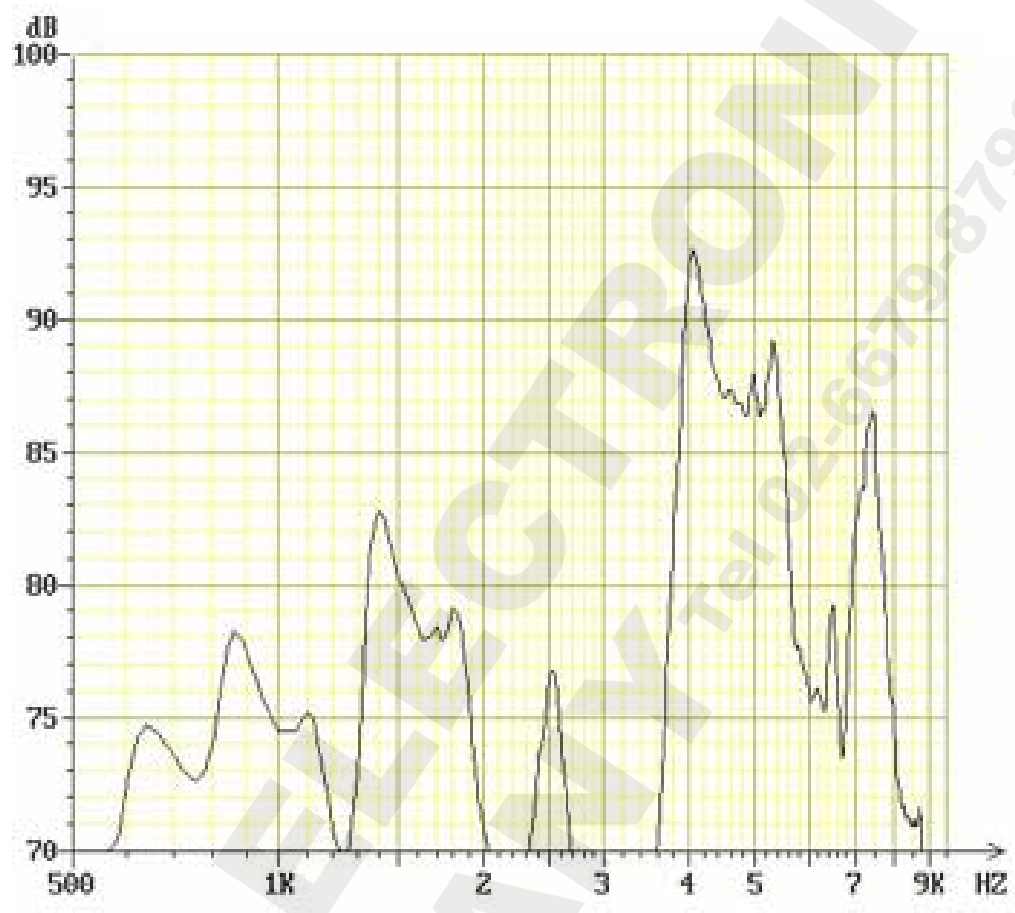


FIG. 2

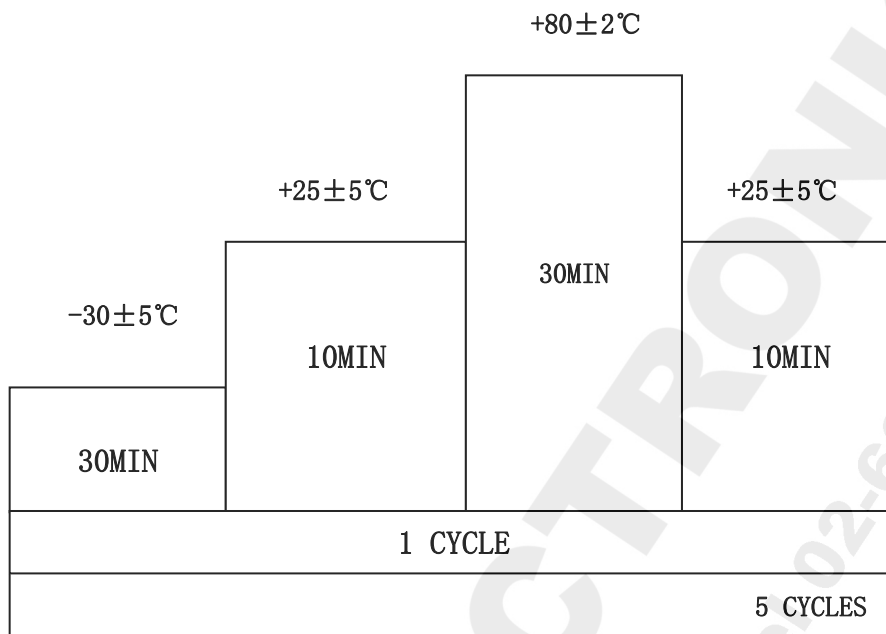


FIG. 3

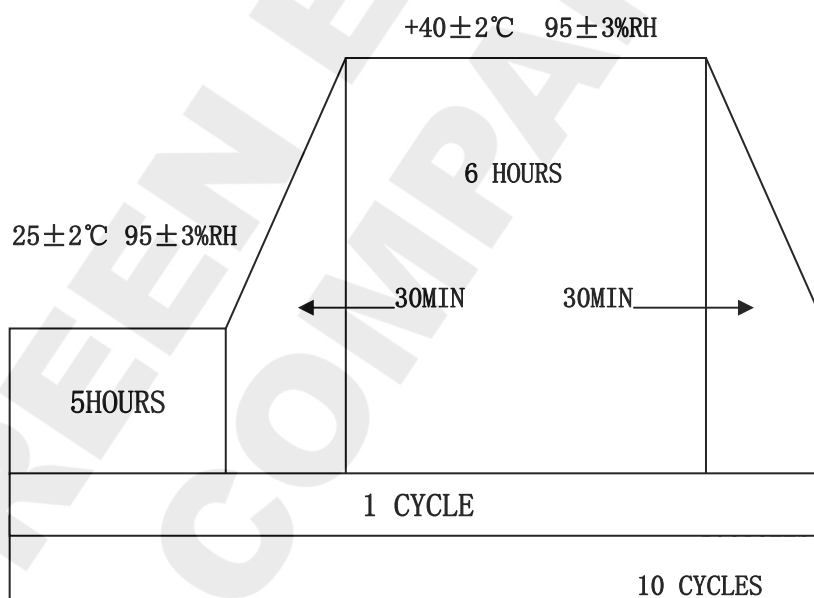
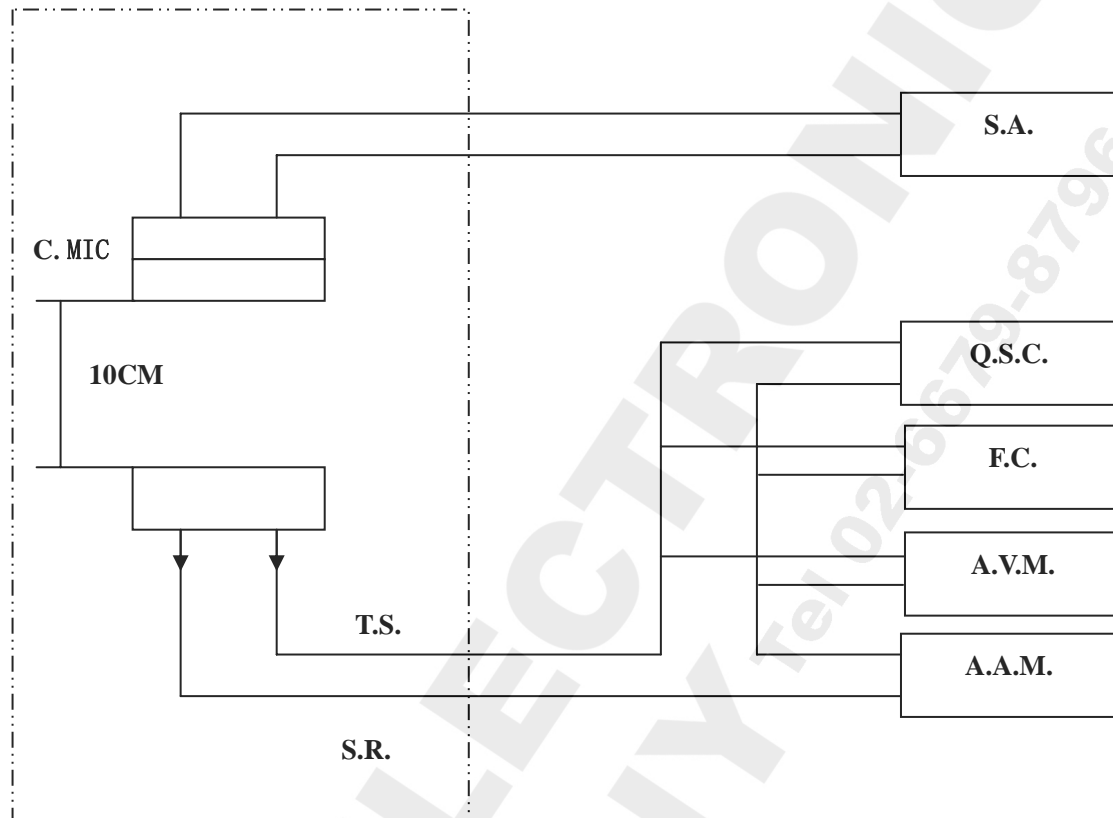


FIG. 4

ELECTRICAL CHARACTERISTIC TEST METHOD



S.A. :SPECTRUM ANALYAER
F.C :FREQUENCY COUNTER
A.A.M. :AC AMPERE METER
S.R. :SOUNDPROOF ROOM
A.V.M. :AC VOLT. METER
T.S. :TESTING SAMPLE
C.MIC :CONDENSER MIC
Q.S.C. :OSCILLATOR

FIG.5