MA	NORSHI

PRODUCT SPECIFICATION

Product Name:	SMD Buzzer	
Part Number:	SM09ET03AV3.6R16SH	
Document No:		
Date:	2021.05.31	
DRAWING BY	CHECKED BY	APPROVED BY
CHEN YUAN	YUE QIN	JIN LI
	mus Road Sharby Taym Livera City Char	azhou lionaou China
Tel:86-519-89185720 E-m	ngye Road, Shezhu Town, Liyang City, Chan nail:sales@manorshi.com Http://www.man	gznou, Jiangsu, China orshi.com



1.ELECTRICAL AND ACOUSTICAL SPECIFICATION

NO.	Item	Unit	Specification	Condition
1	Rated Voltage	Vo-p	3.6	Vo-p
2	Operating Volt	Vo-p	2.5-4.5	↓ ↓ ↓ ov
3	Mean Current	mA	Max.110	Applying rated voltage 2730HZ square wave 1/2 dutv
4	Coil Resistance	Ω	16.0±3.0	
5	Sound Output	dB	83/10cm	Distance at 10cm(A-weight free air), Applying rated voltage 2730HZ,square wave,1/2duty
6	Rated Frequency	Hz	2730	
7	Operating Temp	°C	-30-+70	
8	Storage Temp	°C	-40-+85	
9	Dimension	mm	φ9.0×H2.5	See attached drawing.
10	Weight	gram	0.5	
11	Material		LCP(Black)	
12	Terminal		SMD type	See attached drawing
13	Storage life	month	6	6 months preservation at room temp(25±3℃).Humiditv40%
14	Environmental Protection Regulation		RoHS	

Test condition: TEMP=+25±2 ℃ Related humidity=65±5% Air pressure:860-1060mbar

2.ENVIRONMENT TEST

No	ltem	Test condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +85 $^\circ\!\mathrm{C}$ for 96 hours.	part shall meet
2	Low temp. test	After being placed in a chamber at -40 $^\circ\!\mathrm{C}$ for 96 hours.	specifications without any



3	Thermal shock	The part shall be subjected to 10 cycles. One cycle shall consist of; +85℃ -40℃ 30 min 30 min 60 min	degradation in appearance and performance except SPL. after 4 hours at +25℃,The SPL shall be in ±10dBA compared with initial one.
4	Temp./Humidit y Cycle	The part shall be subjected to 10 cycle shall be 24 hours and consist of; +85℃ a,b:90~98%RH +25℃ a b c:80~98%RH 3hrs 12±0.5hrs 3hrs c 24hours	

3.RELIABILITY TEST

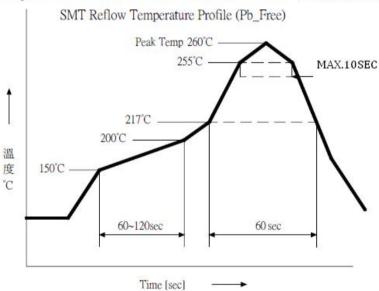
No.	Item	Test condition	Evaluation standard
1	Operatin g life test	 Ordinary temperature The part shall be subjected to 96 hours at room temperature High temperature The part shall be subjected to 72 hours at +70°C with 3.6V,2730HZ applied. Low temperature The part shall be subjected to 72 hours at -30°C with 3.6V,2730HZ applied. 	without any degradation in appearance and performance except SPL. after 4 hours at +25°C,The SPL should be in ±10dBA
TEST	CONDITIO	Ν.	
	nonly Test 060mbar	Condition : a)Temperature: +5~+35℃ b)Hur	nidity:45~85% c)Pressure:
Stand 860~1	ard Test 060mbar	Condition: a)Temperature:+25±2°C b)H	umidity:60~70% c)Pressure:



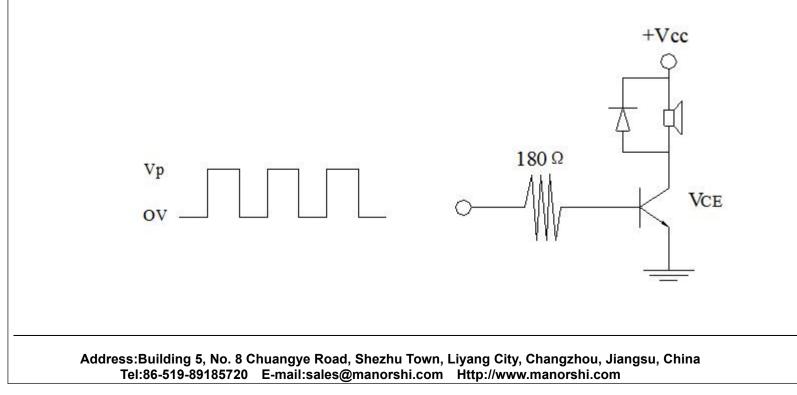
4.MECHANICAL CHARACTERISTICS

N o	Item	Test condition	Evaluation standard
1	Terminal Mechanical Strength	Apply the terminal with 1Kg strength for 10±1 seconds	No damage and cutting off
2	Vibration	The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3G).The vibration test shall consist of 2 hours per axis in each three axes(X,Y,Z),Total 6 hours.	After the test the part shall meet specifications without any damage in appearance and performance except
3	Drop test	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes(X,Y,Z),(a total of 9 times).	SPL.SPL should be in ±10dBA compared with initial one.

Recommended Temperature Profile For Reflow Oven 建議迴焊爐溫度曲線

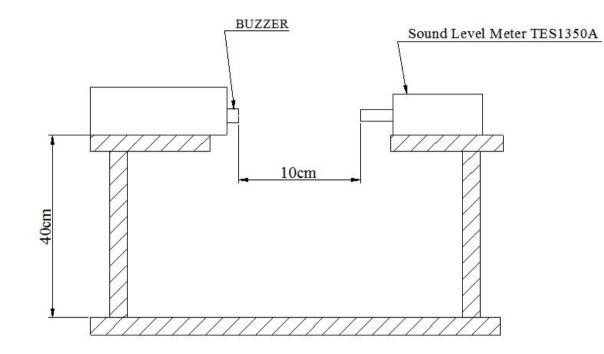


5.TESTING METHOD

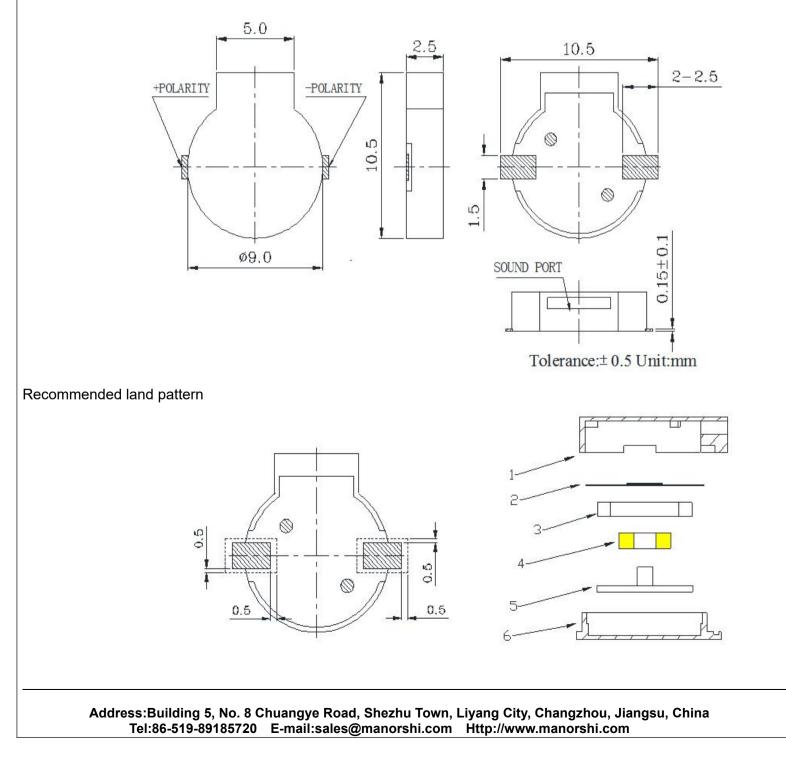




6.INSPECTION FIXTURE



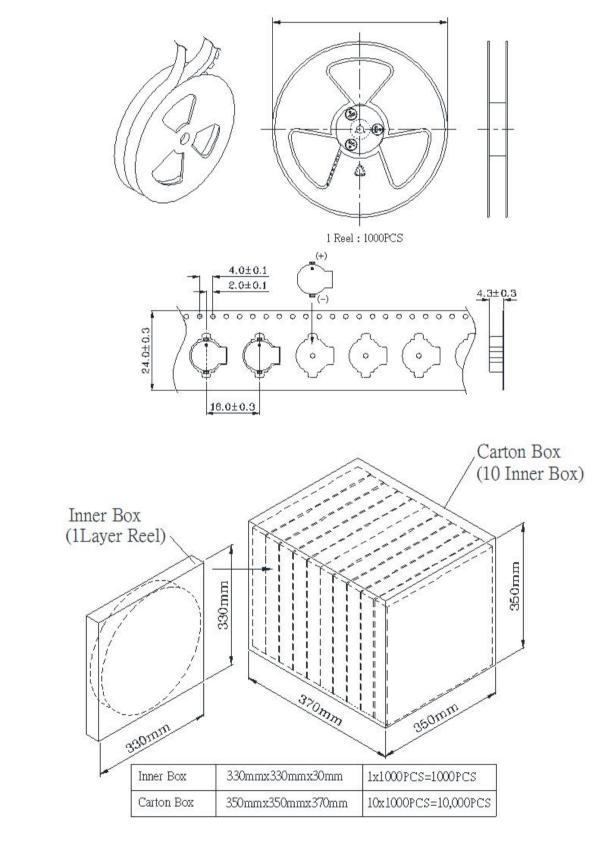
7. DIMENSION





6	CASE	LOP	1
5 Core		Ferrum	1
4 Coil		Copper	1
3 Magnet ring		NdFeB	1
2 Diaphragm		Ferrum	1
1	CASE	LOP	1
Nb.	Components	Material	QTY

8. PACKING



Address:Building 5, No. 8 Chuangye Road, Shezhu Town, Liyang City, Changzhou, Jiangsu, China Tel:86-519-89185720 E-mail:sales@manorshi.com Http://www.manorshi.com