

**SMD-Signalgeber (ohne Ansteuerung) SMD-05A03** Art.-Nr.: 220110

**SPECIFICATIONS:**

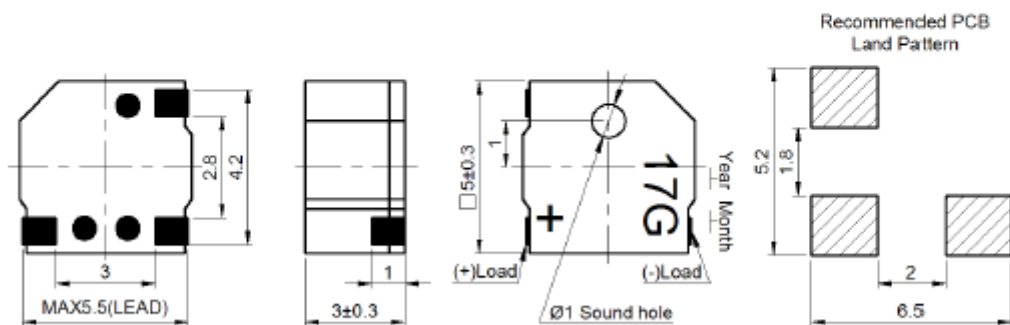
1	Rated Voltage (V)	3
2	Operating Voltage (V)	2~5
3	Resonant Frequency (Hz)	4000
4	☆Coil Resistance ( $\Omega$ )	$12 \pm 2$
5	☆*Sound Output at 10cm (dB)	$\geq 78$
6	☆*Current Consumption (mA)	$\leq 100$
7	Operating Temperature ( $^{\circ}\text{C}$ )	$-40 \sim +105$
8	Storage Temperature ( $^{\circ}\text{C}$ )	$-40 \sim +120$
9	Weight (g)	0.3
10	Case material and colour	LCP / Black

\*Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)

☆Test Basic State: Temp ( $20 \pm 2^{\circ}\text{C}$ ), Humidity ( $40 \sim 70\% \text{RH}$ ), Air pressure ( $860 \sim 1060 \text{hPa}$ ).

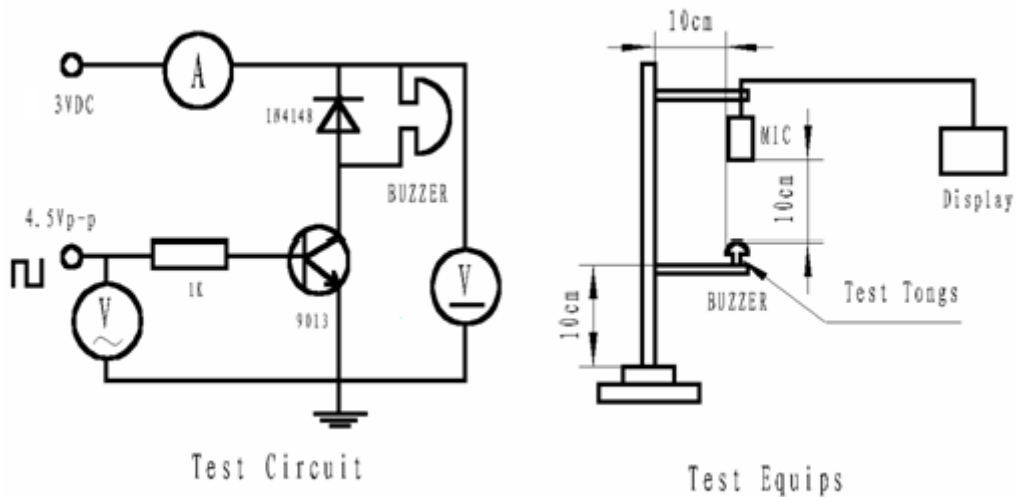
**DIMENSIONS (UNIT: mm)**

Tolerance:  $\pm 0.5 \text{mm}$  Except Specified

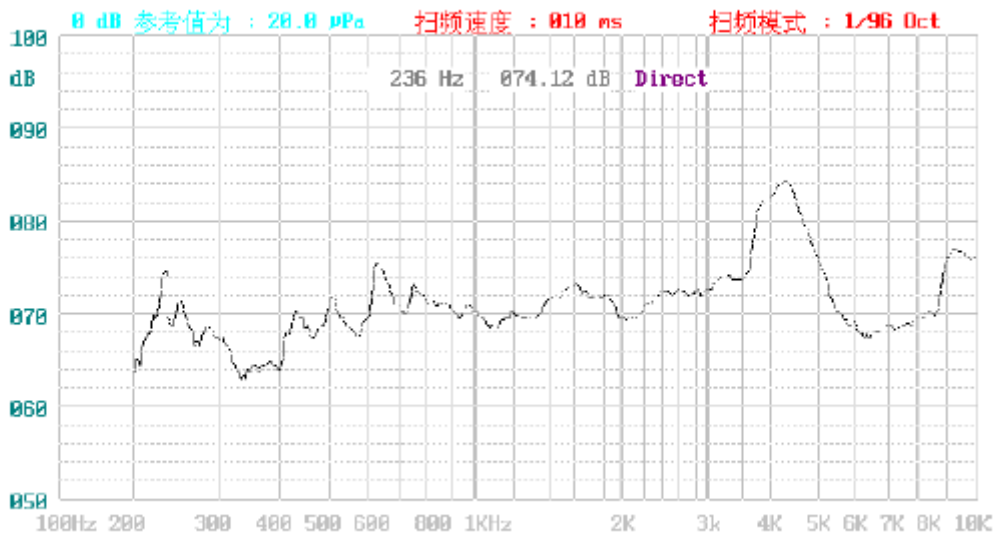


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TEST METHOD:

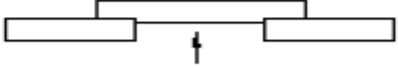


FREQUENCY RESPONSE:



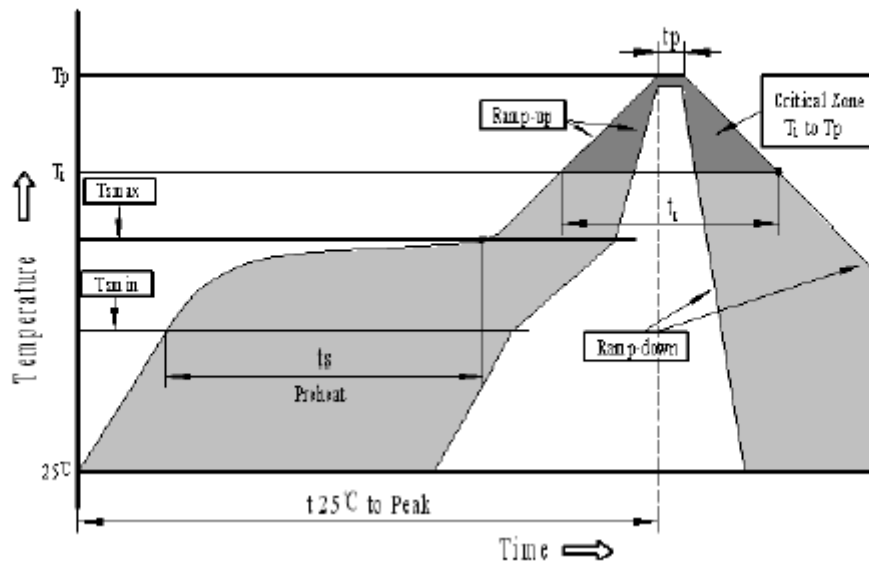
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RELIABILITY TEST:

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage	The part shall be capable of withstanding a storage temperature is +120°C for 120 hours	After the test the part shall meet specifications without any degradation in appearance and performance except SPL shall be initial value±10dB .(pls do the test after 2 hours when you finish the experiment)
2	Low temp. storage	The part shall be capable of withstanding a storage temperature is -40°C for 120 hours	
3	Temp. Cycle	Total 5 cycles, 1 cycle consisting of -40±2°C, 30 minutes 20±5°C 15 minutes 120±2°C, 30 minutes 20±5°C 15 minutes	
4	Humidity Test	40±2°C, 90~95% RH, 120 hours	
5	Vibration Test	The part shall be subjected to a vibration cycle is 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 plane in each three mutually perpendicular planes for a total time of 6 hours.	
6	Shock	Sounder shall be measured after being applied shock (980m/s <sup>2</sup> ) for each three mutually perpendicular directions to each of 3 times by half sine wave.	
7	Drop Test	Dropped naturally from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.	
8	Lead pull	The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part. 	After the test part shall meet specifications without any degradation in appearance and performance.
9	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	
Warranty:For a period of one year from date of manufacture under normal operations.			

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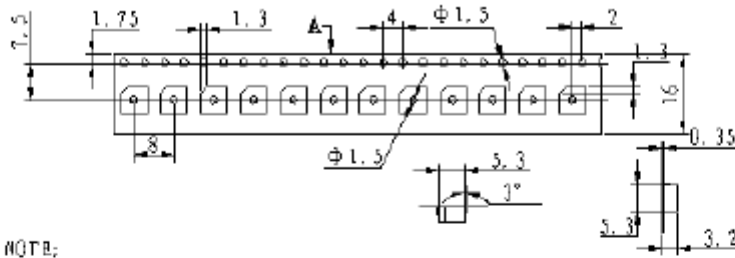
Recommended Temp. Profile for Reflow Oven (Fig.1)



Profile Feature	Pb-Free Assembly
Average ramp-up rate( $T_L$ to $T_p$ )	3°C/second max.
Preheat	
-Temperature Min.( $T_{s_{min}}$ )	150°C
-Temperature Min.( $T_{s_{max}}$ )	200°C
-Temperature Min.( $t_s$ )	60~180 seconds
$T_{s_{max}}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature( $T_L$ )	217°C
-Time( $T_L$ )	60~150 seconds
Peak temperature( $T_p$ )	250°C+0/-5°C
Time within 5°C of actual Peak temperature ( $t_p$ )	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

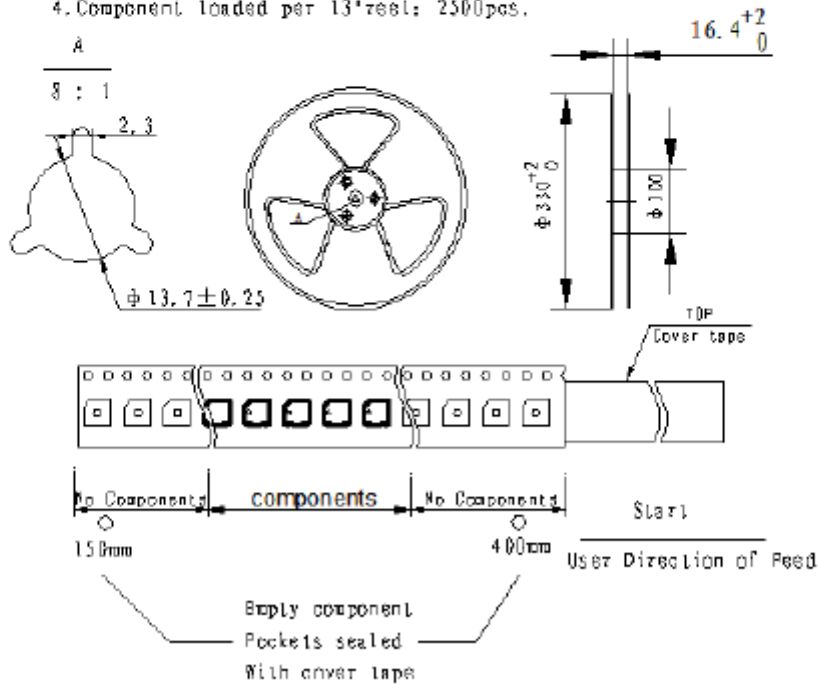
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PACKING:



NOTE:

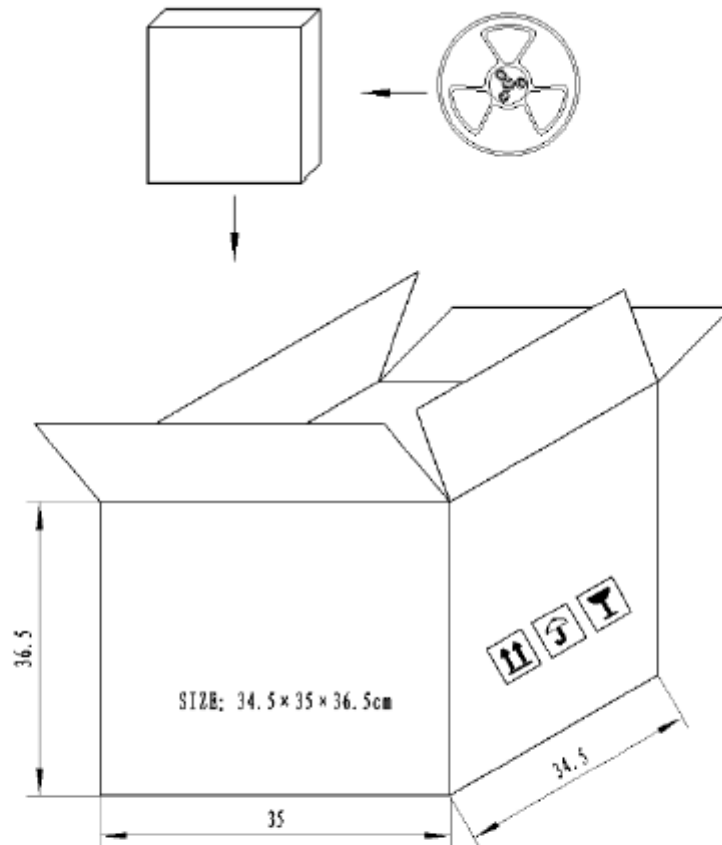
1. ID sprocket hole pitch cumulative tolerance  $\pm 0.20\text{mm}$ .
2. All dimensions meet BIA-481-D requirements.
3. Thickness:  $0.35 \pm 0.05\text{mm}$ .
4. Component loaded per 13' reel: 2500 pcs.



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PACKING:



NOTES:

1. 2500 PCS per box
2. 10 boxes / carton 25000 PCS
3. 4 boxes / carton 10000 PCS