



PRODUCT INFORMATION

PART #	CEPB238A220-618C32MHR	Revision: 0-2015
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SMD PIEZOELECTRIC BUZZER



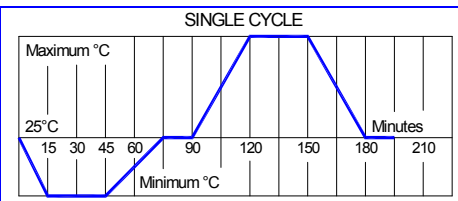
DESCRIPTION:	FEATURES:
Challenge Electronics Piezoelectric Buzzer, 23.8 mm diameter, A type case (Round/No Standoffs and TOP Sound Port), 22.0 mm Height, 6 to 18 Vdc operation, Continuous Tone, 3,200 Hz Resonant Frequency, with a minimum output of 90 dB(A) at 9 Vdc, 10 cm, SMD Termination, High Temp, RoHS compliant	<ul style="list-style-type: none"> ◆ Extended Operating Temperature ◆ Flame Retardant Plastic ◆ Lead Free Reflowing Solderable ◆ ISO 9001 & TS16949 Certified ◆ RoHS compliant

SPECIFICATIONS

Sound Type	Continuous Tone	Operating Voltage	6.0 - 18.0 Vdc	Nominal Rated Voltage	9.0 Vdc
Sound Pressure Level	90 dB(A), at Nominal Rated Voltage, 10 cm				
Operating Current	10 mA, at Nominal rated Voltage				
Resonant Frequency	3,200 ± 500 Hz.	Operating Temperature	-40°C to + 85°C	Storage Temperature	-40°C to + 90°C
Material	Housing	Plastic, PPS A7-03 or equal		Sound Port Direction	Top
	Diaphragm	Ni Alloy Disc N42 or equal		Encapsulation	No
	Termination	4 soldering pads, Sn plated Brass			
Physical Dimensions	Diameter (D)	23.8 mm ø	Height (H)	22.0 mm	
Approximate Weight	5.66 grams	Removable Washing Label	No	Compliance	RoHS, REACH
Options					

RELIABILITY

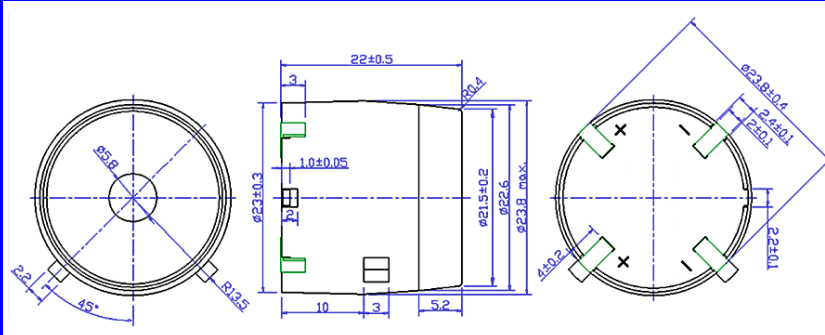
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage, at Maximum Rated Operating Temperature *
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *
Thermal Shock Test	<p>96 hours storage at Minimum Rated Storage Temperatures *</p> <p>5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is three (3) hours long *</p>
Humidity Test	240 Hours at +40°C±2°C. 90-95% RH *
Insulation Test	A minimum of 10 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case
Vibration Test	2 Hours of at 1.5 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *
Termination Strength	Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for 10 seconds
Drop Test	Dropped naturally from 750 mm height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (9 times total) *
Solderability	Terminal leads are immersed in rosin for 5 seconds and then immersed in solder-bath of +270°C for 3±1 seconds
Soldering Heat Resistance	Terminal leads are immersed, up to 1.5 mm from part case, in rosin for 5 seconds and then immersed in solder-bath of +350±5°C for 3±0.5 seconds or +260±5°C for 10±1 seconds
* Reliability Test Performance	Parts should conform to original performance within ±3dB, after 3 hours of recovery period
Operation Life Test	Continuous: 240 hours of continuous operation, at Rated Voltage, each at Minimum & Maximum Rated Operating Temperatures
	Intermittent: One thousand (1,000) hours of: 1 minute ON 4 minutes OFF cycle, at Room Temperature, and Rated Voltage
Warranty	For a period of one (1) year from date of shipping under normal operations conditions This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair



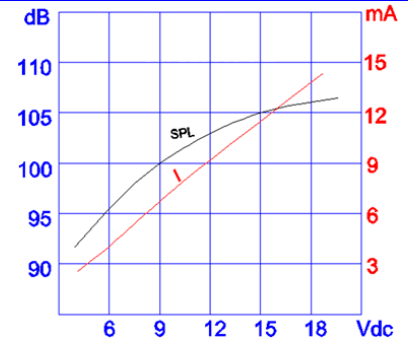


DIMENSIONS

Units in: mm, Tolerance: ± 0.5 mm unless specified otherwise



SPL & CURRENT RESPONSE

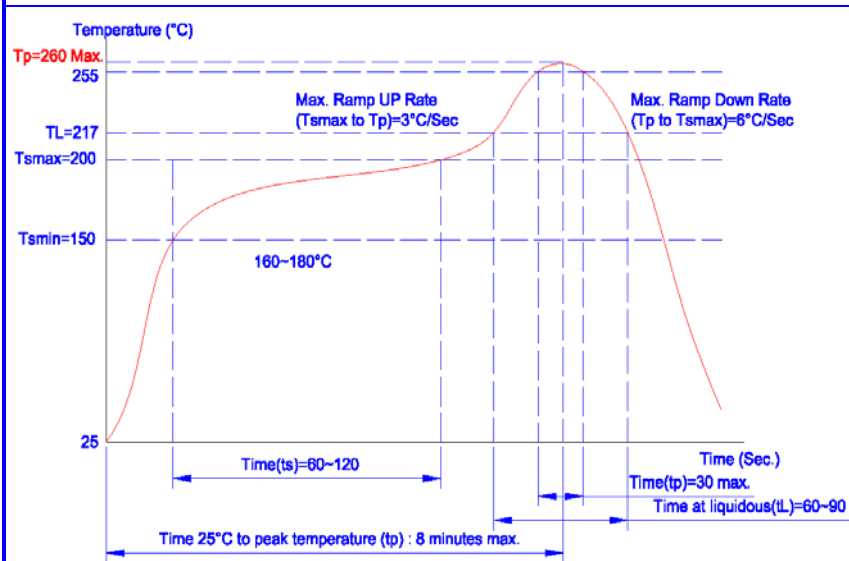


RECOMMENDED LAND PATTERN

STORAGE

- Shelf life:** Twelve (12) months when devices are to be stored in factory supplied unopened ESD moisture sensitive bag under maximum environmental conditions of 30°C, 70% R.H.
- Exposure:** Devices should not be exposed to high humidity high temperature environment. MSL (moisture sensitivity level) Class 2

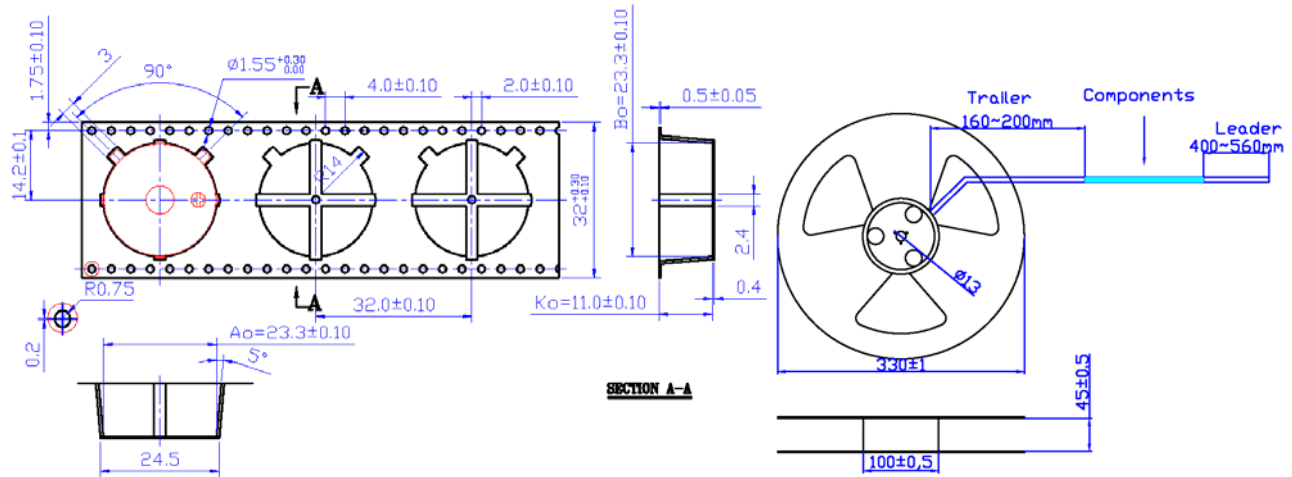
Solder Reflow Profile:



Stage	Temperature Profile	Maximum Time
Pre-heat	170~230°C	120 sec
Solder Melt	Above 230°C	90 sec
Peak	260°C Maximum	30 sec
Cool Down		90 sec
Total Duration Period		9 Minutes Maximum



TAPE and REEL INFORMATION



NOTE:

1. 10 sprocket holes pitch cumulative tolerance +/-0.20mm.
2. Carrier camber not to exceed 1 mm in 100 mm.
3. Ao & Bo measured on a plane 0.3 mm above the bottom of the pocket
4. Ko measured from a plane on the inside bottom of pocket to the top surface of the carrier.
5. All dimensions meet EIA-481-2-A requirements.
6. Component loaded per 13" reel: 150 pcs.

PACKAGING

MARKING

Reel

PACKAGING		MARKING		Reel	
		Bundle			
		Part Number		Dimensions	X1 33.0 cm
		Quantity			Y1 cm
		Lot and/or Date Code			Z1 4.5 cm
		Bundle Number		Quantity 110	
		Shipping Box			
		Part Number			
		Customer PN (if required)			
		Quantity			
		Lot and/or Date Code		SHIPPING BOX	
		PO Number		Dimensions	X3 58.0 cm
		Net Weight			Y3 39.0 cm
		Gross Weight			Z3 39.5 cm
		Box Number of Boxes		Number of Reels 11	
		Made in China		Quantity 1,210	
				Approximate Weight 14.9	
Revision	Description	By:		Date	