



PRODUCT INFORMATION

PART #:	CEPT090L018-120-21MHR	Revision: 2-2014
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	SMD Piezoelectric Sound Transducer	
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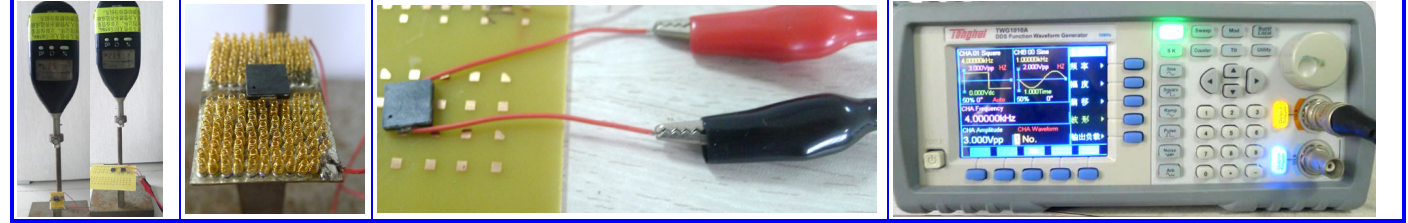
DESCRIPTION	FEATURES
Challenge Electronics Piezoelectric Transducer; 9.0 mm Length; L style case (SMD Square with Side Sound Port); 1.8 mm High; 1 to 20 Vp-p Operating Voltage; 2,100 Hz. Resonant Frequency; minimum Sound output of 73 dB(A) at 10 cm at Rated Voltage, on PCB; SMD Termination, High Temperature RoHS Compliance	<ul style="list-style-type: none"> ● RoHS Compliant ● REACH Compliant ● ISO 9001 & TS16949 Certified

SPECIFICATIONS							
Operating Voltage	1- 20 Vp-p	Nominal Rated Voltage	3 Vp-p	Resonant Frequency	2,100 ± 500 Hz.		
Sound Pressure Level	Minimum 73 dB(A), at: 10 cm, Resonant Frequency, Nominal rated Voltage, Square Wave 50% Duty Cycle						
Operating Current	Maximum 1 mA, at: Resonant Frequency, Nominal rated Voltage, Square Wave						
Operating Temperature	-40°C to +105 °C	Storage Temperature	-40°C to + 120°C	Capacitance	15,000 ± 30% pFD at 100 Hz. 1 Vrms		
Material	Housing	Plastic, LCP Vectra E130i or equal			Sound Port Direction	Side	
	Diaphragm	Ni Alloy Disc N42 or equivalent			Encapsulation	Plastic Cap	
	Termination	SMD					
Physical Dimensions	Length (L)	9.0 mm ± 0.2 mm	Width (W)	9.0 mm ± 0.2 mm	Height (H)	1.8 mm ± 0.2 mm	
Approximate Weight	0.8 grams	Removable Washing Label	No	Compliance	RoHS and REACH		
Packaging							

RELIABILITY

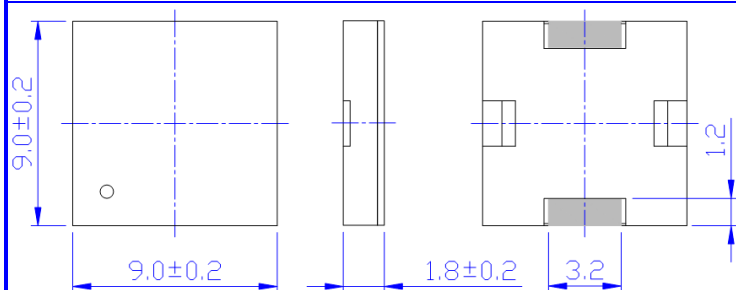
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage, at Maximum Rated Operating Temperature *
	96 hours continuous operation at Rated Voltage, at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *
	96 hours storage at Minimum Rated Storage Temperatures *
Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature</p> <p>Each cycle shall be set per diagram and is 3 hours long *</p> <div style="text-align: right;"> </div>
Humidity Test	140 Hours at +40°C±2°C, 90-95% RH *
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) *
* Reliability Test Performance	Parts should conform to original performance after 3 hours of recovery period
Operation Life Test	Continuous: Two hundred fifty (250) 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 Maximum 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

MEASUREMENT SETUP

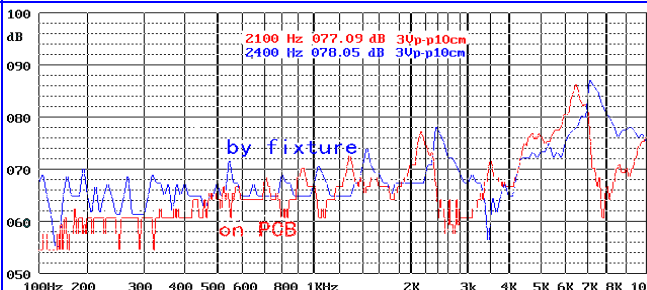




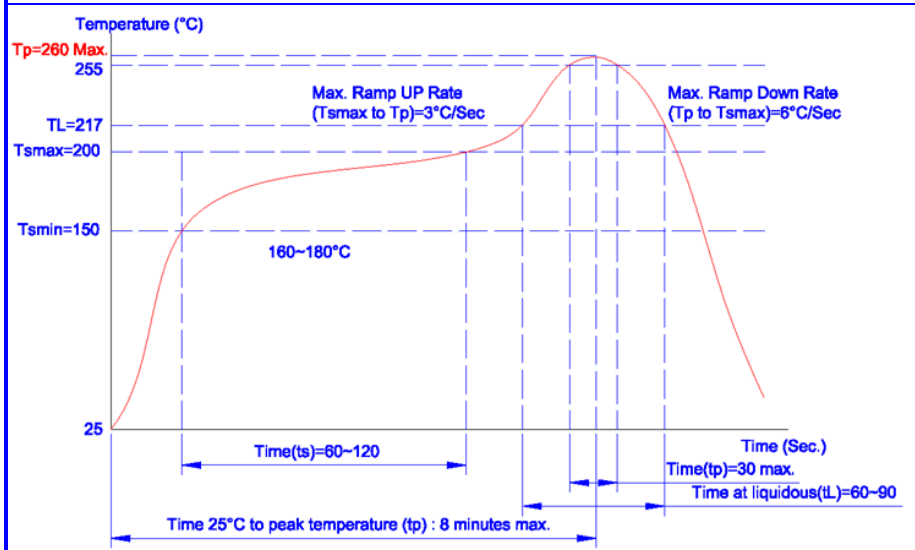
DIMENSIONS Units in: mm Tolerance: ± 0.2 mm



FREQUENCY RESPONSE CURVE

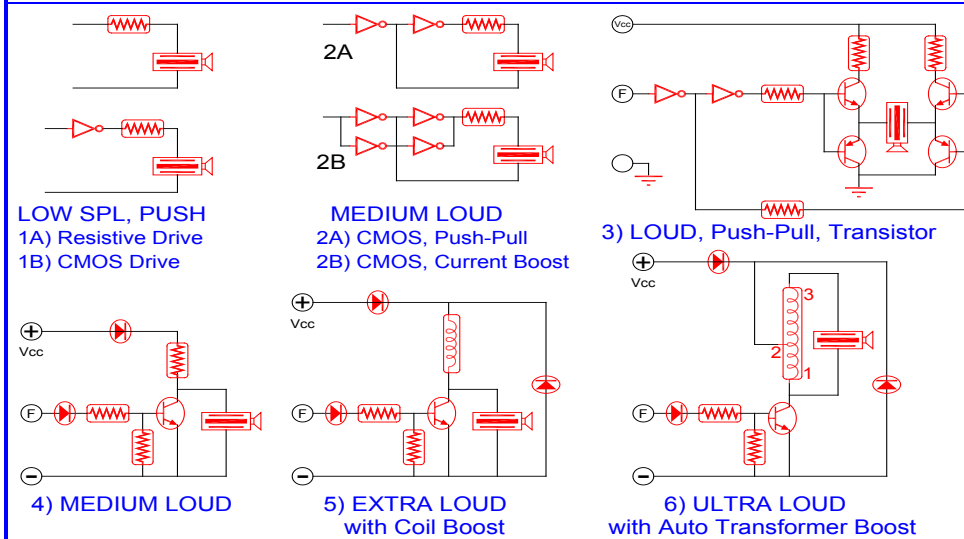


SOLDER REFLOW PROFILE



Stage	Temperature Profile	Maximum Time
Pre-heat	150~200°C	120 sec
Solder Melt	Above 230°C	90 sec
Peak	260°C Maximum	30 sec
Cool Down		90 sec
Total Duration Period		

RECOMMENDED CIRCUIT DRIVE

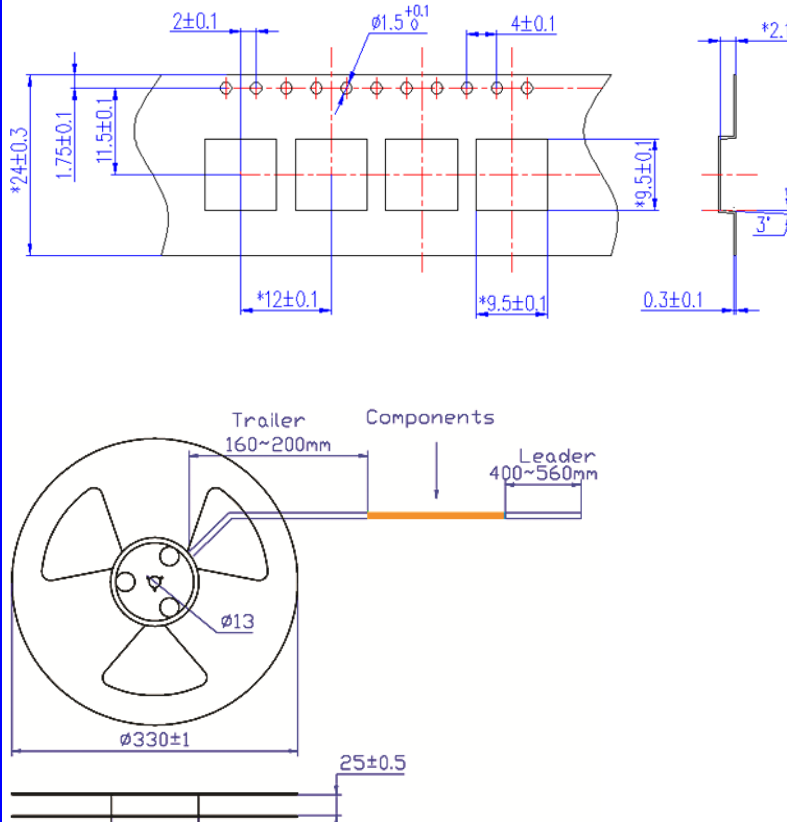


STORAGE

1. 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.
2. Exposure: Devices should not be exposed to high humidity high temperature environment. MSL (moisture sensitivity level) Class 2



TAPE and REEL INFORMATION



NOTE:

- 10 sprocket hole pitch cumulative tolerance +/-0.20mm.
- Carrier camber not to exceed 1 mm in 100 mm.
- All dimensions meet EIA-481-2-A requirements.
- Thickness: 0.40+/-0.05 mm.
- Component loaded per 13" reel:
- Quantity:
 - 2500 pcs per reel
 - 5 reels/12,500 pcs per carton.

PACKAGING

	MARKING		Reel	
	Reel		Reel Diameter	13 in. 330 mm
	Part Number		Quantity	2500 pcs
	Quantity			
	Lot and/or Date Code			
	Shipping Box			
	Part Number			
	Customer PN (if required)			
	Quantity		Shipping Box	
	Lot and/or Date Code		X	35 cm
	PO Number		Y	35 cm
	Net Weight		Z	22.5 cm
	Gross Weight		Number of Reels	5
	Box Number of Boxes		Quantity	12,500
			Approximate Weight	Kg
Made in		China		
Revision	Description		By:	Date:
1-2014	Added a product photo		W. Sargent	2014-12-12
2-2014	Updated Reel and Carton Quantities		W. Sargent	2014-12-15