
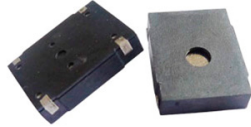
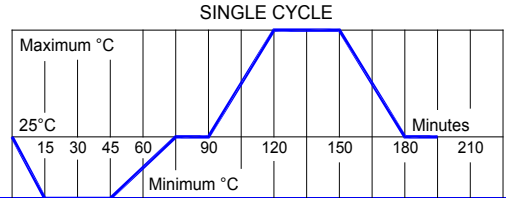




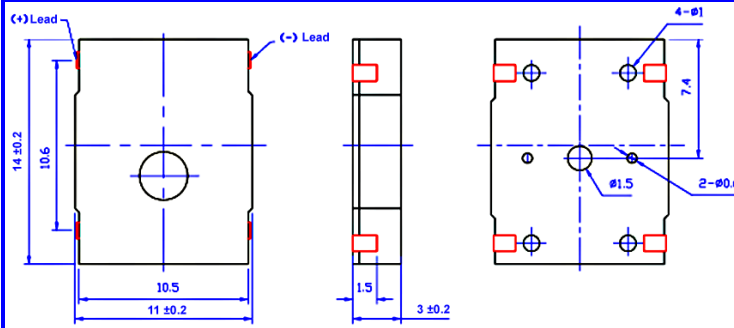
PRODUCT INFORMATION

PART #	CEET140Q030-30-307-27MR				Revision: 0-2014	
	SMD Electro-Magnetic Sound Transducer					
DESCRIPTION				FEATURES		
Challenge Electronics Electro-Magnetic Transducer, 14.0 Length 11.0 mm Width, Q type SMD case (Rectangle, TOP Sound Port), 3.0 mm Height, 30 Ohms coil resistance, 3 to 7 Vo-p operation 2,700 Hz Resonant Frequency, with a minimum output of 88 dB(A) at,10cm. 4 M (terminals under) RoHS Lead Free compliant				<ul style="list-style-type: none"> • RoHS, Lead Free Compliant • ISO 9001 • Tape and Reel • Flame Retardant 		
SPECIFICATIONS						
Resonant Frequency	2,700 ± 500 Hz.		Coil Impedance	30 ± 2 Ohms		
Operating Voltage	3.0 - 7.0 Vo-p		Rated Voltage	5.0 Vo-p		
Sound Pressure Level	88 dB(A), at: rated Voltage, 10 cm, Resonant Frequency, Square wave, 50% Duty Cycle					
Maximum Current	80 mA, at rated Voltage, Resonant Frequency, Square wave, 50% Duty Cycle					
Operating Temperature	-30°C to + 85°C		Storage Temperature	-40°C to + 90°C		
Termination	SMD, 4 soldering pads under case, Sn plated Brass					
Material	Case	SMD, Plastic, LCP VECTRA 130i				
	Diaphragm	Ni Alloy Disc N50		Back Sealed	Epoxy	
Sound Port Direction	Top		Case Standoffs from PCB	No	Removable Washing Label	No
Physical Dimensions	Length or Diameter (L /D)	14.0 mm	Width (W)	11.0 mm	Height (H)	3.0 mm
Approximate Weight	1.0 grams		Compliance	RoHS, Lead Free		
Options						
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	5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is three (3) hours long *					
Humidity Test	96 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 0.75 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	96 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					

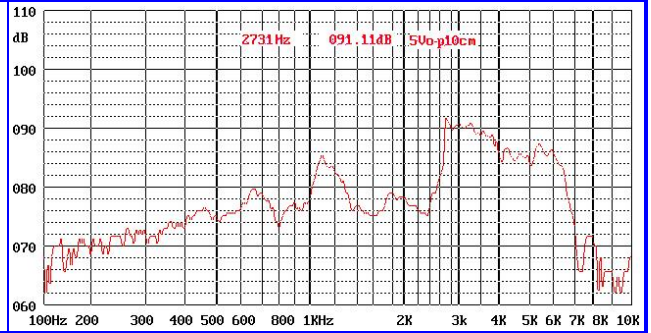


DIMENSIONS

Units in: mm, Tolerance: $\pm 0.5\text{mm}$ unless specified otherwise.



SPL vs. FREQUENCY RESPONSE

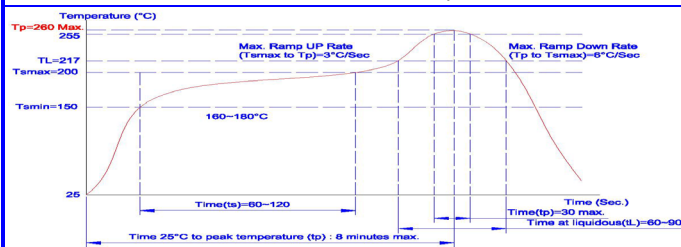


RECOMMENDED LAND PATTERN

STORAGE

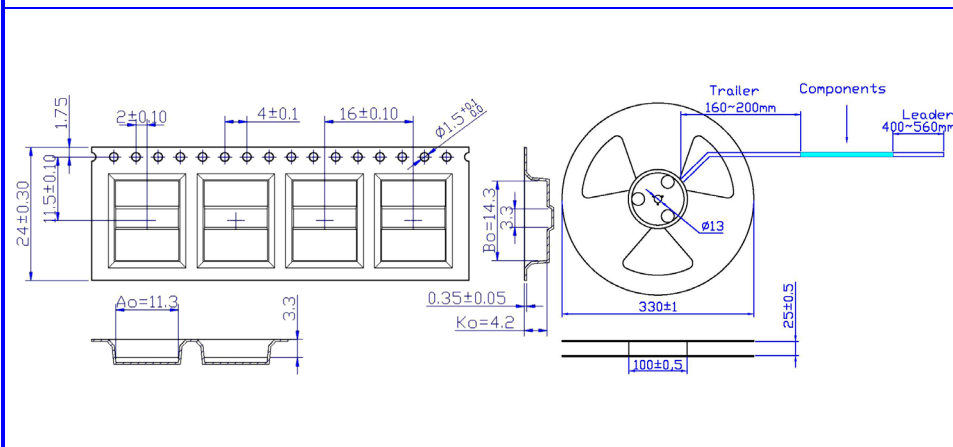
- Shelf life:** Twelve (12) months when devices are to be stored in factory supplied unopened ESD moisture sensitive bag under maximum environmental conditions of 30°C, 70% R.H.
- Exposure:** Devices should not be exposed to high humidity high temperature environment. MSL (moisture sensitivity level)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

SOLDER REFLOW PROFILE per IPC/JEDEC J-STD-020D



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		
Total Duration Period		

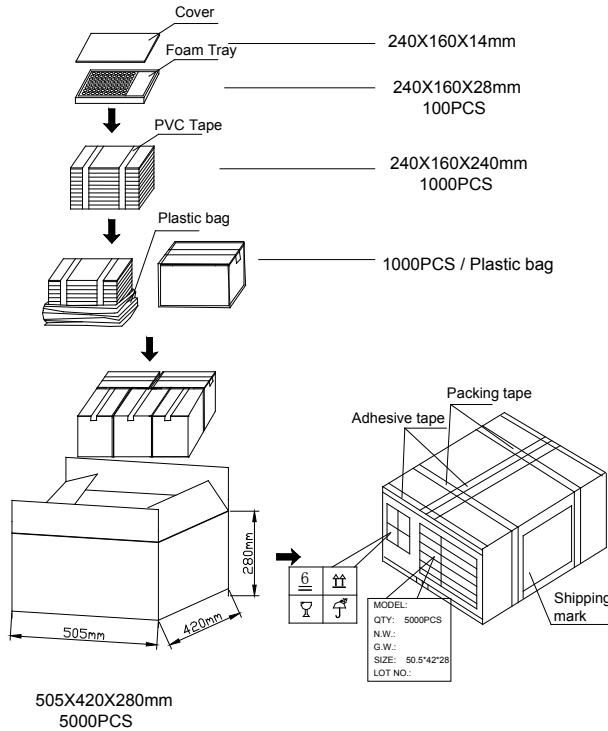
TAPE & REEL DIMENSIONS (Unit: mm)



- 1.10 sprocket holes pitch cumulative tolerance 60.20mm.
2. Carrier camber not to exceed 1 mm in 100 mm.
3. A0 & B0 measured on a plane 0.3mm above the bottom of the pocket
4. K0 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. Material: Black Conductive Polystyrene Alloy.
7. Component loaded per 13" reel: 1000pcs.



PACKAGING



MARKING		TRAY	
Bundle	Dimensions	X1	24 cm
Customer PN		Y1	16 cm
Other PN (if required)		Z1	2.8 cm
Quantity	Quantity	100	
Lot and/or Date Code	BUNDLE		
Bundle Number	Dimensions	X2	24 cm
Shipping Box		Y2	16 cm
Customer Part Number		Z2	24 cm
Other PN (if required)	Quantity	1,000	
Quantity	SHIPPING BOX		
Lot and/or Date Code	Dimensions	X3	50.5 cm
PO Number		Y3	42 cm
Net Weight		Z3	28 cm
Gross Weighjt	Number of Bundles	5	
Box Number	Quantity	5,000	
of Number of Boxes	Approximate Weight		
Made in China			

Revision	Description	By	Date