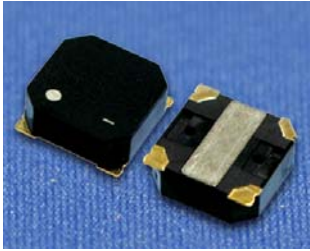


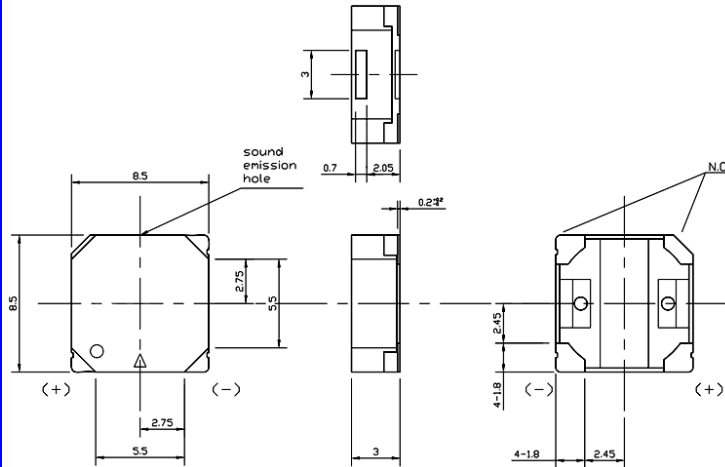


PRODUCT INFORMATION

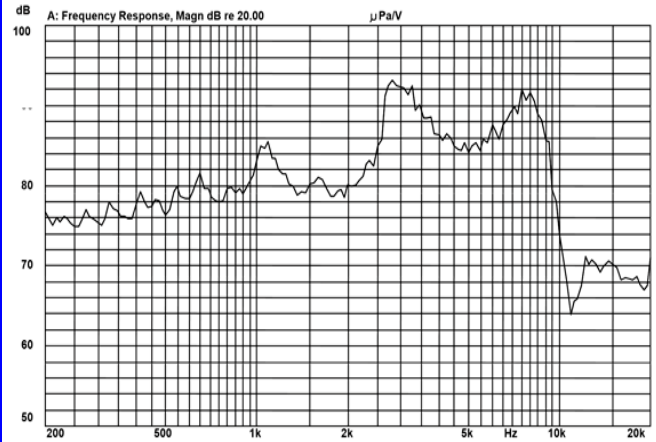
| | | | | | | |
|--|--|-------------------------------|--|----------------------|---------------------------|---|
| PART #: | CEET085L030-30-406-27MHR | | | | | Revision: 1-2018 |
| | Electromagnetic Sound Transducer | | | | |  |
| DESCRIPTION | | | FEATURES | | | |
| Challenge Electronics Electromagnetic Transducer; 8.5 mm Length; L style case (side port); 3.0 mm High; 4 to 6 Vo-p Operating Voltage; 2700 Hz. Resonant Frequency; minimum Sound output of 85 dB(A) min at 10 cm at Rated Voltage; SMD Termination, High/Extended Temp, RoHS, Lead Free, Reach Compliance | | | <ul style="list-style-type: none"> • RoHS, Lead Free Compliant • REACH Compliant • ISO 9001 Certified | | | |
| SPECIFICATIONS | | | | | | |
| Operating Voltage | 4-6 Vo-p | Nominal Rated Voltage | 5 Vo-p | Resonant Frequency | 2,700 Hz. | |
| Sound Pressure Level | Minimum 85dB(A), at: 10 cm, Resonant Frequency, Nominal rated Voltage, Square Wave 50% Duty Cycle | | | | | |
| Operating Current | Maximum 60 mA, at: Resonant Frequency, Nominal rated Voltage, Square Wave | | | | | |
| Operating Temperature | -40°C to + 90°C | Storage Temperature | -40°C to + 90°C | Coil DC Resistance | 30 ± 3 Ω | |
| Material | Housing | Nylon #46 | | Sound Port Direction | Side | |
| | Diaphragm | Ni Alloy Disc | | Encapsulation | No | |
| | Termination | SMD Tin-plated brass contacts | | | | |
| Physical Dimensions | Length (L) | 8.5 mm ± 0.3 mm | Width (W) | 8.5 mm ± 0.3 mm | Height (H) | 3.0 mm ± 0.3 mm |
| Approximate Weight | 0.45 grams | Removable Washing Label | No | Compliance | RoHS, Lead Free 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 | 50 cycles of Minimum and Maximum Operating Temperature, 30 minutes at minimum operating temperature and 30 minutes at max operating temperature | | | | | |
| Humidity Test | 72 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 | 10 minutes at 55 Hz. vibration frequency and 10 minutes at 150 Hz vibration frequency, to each of 3 perpendicular directions (Total 60 minutes) * | | | | | |
| 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 500 mm height, 10 times * | | | | | |
| * Reliability Test Performance | Parts should conform to original performance within ±3dB, after 4 hours of recovery period | | | | | |
| Operation Life Test | One Thousand (1000) hours of continuous operation, at Rated Voltage, at room temperature | | | | | |
| 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 | | | | | |



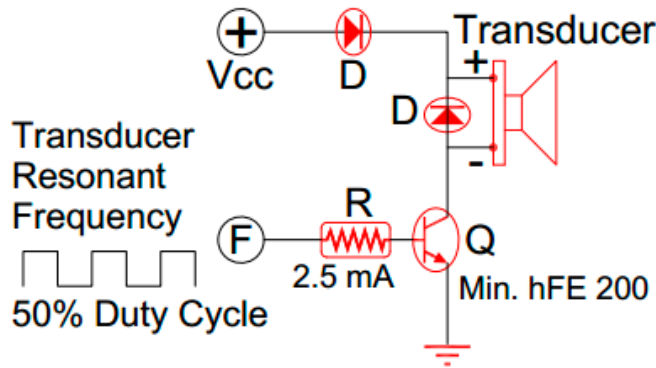
DIMENSIONS Units in: mm Tolerance: ± 0.3 mm



FREQUENCY RESPONSE CURVE



RECOMMENDED CIRCUIT DRIVE



The diodes are recommended to protect the power supply from noise interference produced by the transducer coil.

STORAGE

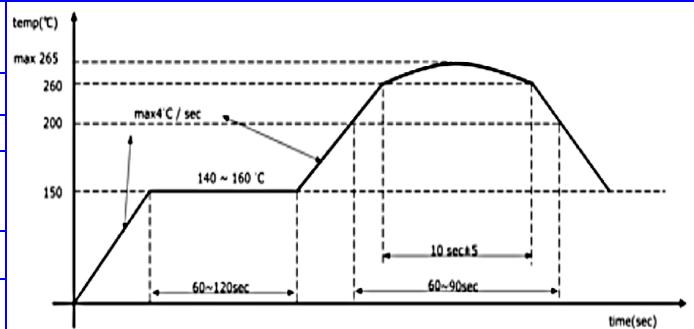
1. Shelf life: Twelve (12) months when devices are to be stored in factory supplied unopened ESD moisture sensitive bag under maximum environmental conditions of 30°C, 70% R.H.
2. Exposure: Devices should not be exposed to high humidity high temperature environment. MSL (moisture sensitivity level) Class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

SOLDERING INSTRUCTIONS

This part can withstand the given temperature condition for two (2) passes.

| Stage | Temperature Profile | Maximum Time |
|-------------|---------------------|--------------|
| Pre-heat | 150~200°C | 120 sec |
| Solder Melt | Above 230°C | 90 sec |
| Peak | 265°C Maximum | 30 sec |
| Cool Down | | 90 sec |

SOLDER REFLOW PROFILE



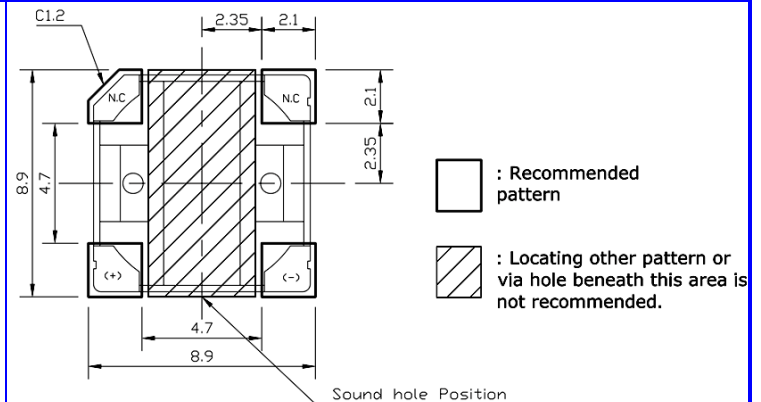
Hand Soldering Guidelines:

This part is designed for SMT soldering only. Working with manual iron is not recommended except sample test or rework.

In case of iron soldering, the iron tip temperature should be lower than 240 degree celsius and soldering time should be shorter than 15 seconds.

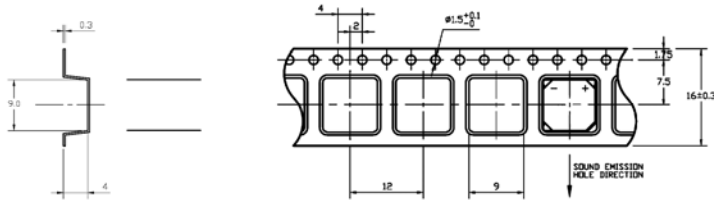
Washing Advisory:

This part is not washable type. So soaking into solvent or water will result in decrease of sound level.

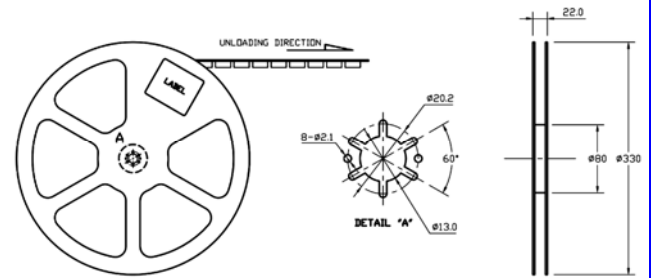




TAPE and REEL INFORMATION



Unit : mm
 General corner unless specified : R 0.25 mm
 General tolerance : 0.1 mm
 Reel and carrier specification refers to JIS C 0806
 Quantity per a reel is 1,500 EA
 50 pockets at both end are empty for leader purpose



SUBSTANCE OF VERY HIGH CONCERN

This product does NOT contain any of the REACH Substances of Very High Concern (SVHC), and is in compliance with European Union REACH Regulation No.1907/2006 regarding chemical substances which must be registered or disclosed.

| | | | | |
|-----------------|---|---------------------|-------------------|--------------|
| | MARKING | Reel | | |
| | Reel | Reel Diameter | 33 mm | |
| | Part Number | Quantity | 1,500 | |
| | Quantity | Bundle | | |
| | Lot and/or Date Code | Dimensions | X | 33 cm |
| | Shipping Box | | Y | 33 cm |
| | Part Number | | Z | cm |
| | Customer PN (if required) | Quantity | 5 Reels | |
| | Quantity | Shipping Box | | |
| | Lot and/or Date Code | Dimensions | X | 33 cm |
| | PO Number | | Y | 33 cm |
| | Net Weight | | Z | 15 cm |
| | Gross Weight | Number of Bundles | 1 | |
| | Box Number of Boxes | Quantity | 7,500 | |
| | | Approximate Weight | 4.5 Kg | |
| | Made in | China | | |
| Revision | Description | By: | Date: | |
| 1-2018 | Updated termination from gold-plated brass to tin-plated brass and unit weight from 0.4 g to 0.45 g. Changed coil impedance $30 \pm 5 \Omega$ to coil DC resistance $30 \pm 3 \Omega$. Updated general dimension tolerance from ± 2 mm to ± 3 mm. Updated reliability test information. Updated reel and carton quantity. Removed extra Solder Reflow Profile section. | JL | 2018-02-21 | |