



PRODUCT INFORMATION

PART #	CEMB128M10-815C23MR	Revision: 0-2017
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	SMD Electro-Magnetic Buzzer
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DESCRIPTION	FEATURES	
Challenge Electronics Electro-Magnetic Buzzer, 12.8 mm Diameter, M type case (Square, Top Sound Port), 10.0 mm High, 8 to 15 Vdc operation, Continuous Tone, minimum SPL of 85 dB(A) at: 12 Vdc, 10 cm, 2300 ± 300 Hz. resonant Frequency, SMD Termination, RoHS Lead Free and REACH Compliance	<ul style="list-style-type: none"> Washable RoHS, Lead Free Compliant ISO 9001 & TS16949 Certified 	

SPECIFICATIONS							
Sound Type	Continuous Tone		Operating Voltage	8 to 15 Vdc	Rated Voltage	12 Vdc	
Sound Pressure Level	Minimum 85 dB(A) at: Rated Voltage, 10 cm, 25 °C						
Operating Current	Maximum 30 mA at Rated Voltage, 25 °C						
Resonant Frequency	2300 ± 300 Hz.	Operating Temperature	-30°C to + 70°C	Storage Temperature	-40°C to +85°C		
Material	Case	M Style, Plastic, PPS, Gray					
	Encapsulation	Epoxy Potting					
	Termination	SMD, 2 soldering pads, Sn plated Brass					
Physical Dimensions	Length (L)	12.8 mm	Width (W)	12.8 mm	Height (H)	10.0 mm	
Approximate Weight	2.8 grams	Removable Washing Label	No	Compliance	RoHS, Lead Free, REACH		

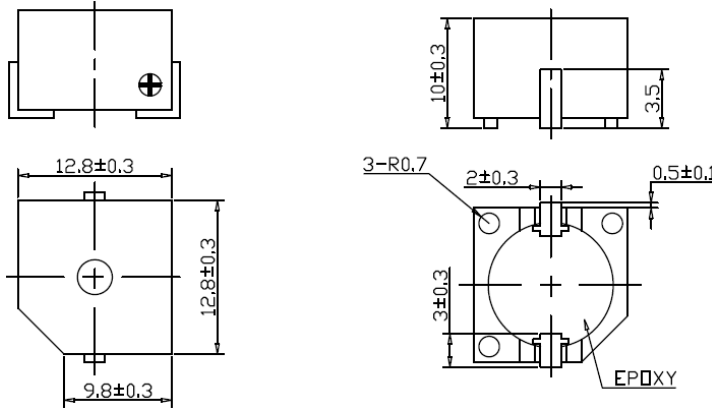
RELIABILITY	
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage, at Maximum Rated Operating Temperature * 96 hours continuous operation at Rated Voltage, at Minimum Rated Operating Temperature *
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures * 96 hours storage at Minimum Rated Storage Temperatures *
Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is three (3) hours long *</p>
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 0.75 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 ±3 dB, 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

The information contained herein is believed to be correct, but no guarantee or warranty, express or implied, with respect to accuracy, completeness or results is extended and no liability is assumed.
 Challenge Electronics reserves the right to make changes in any specification, data or material contained herein.

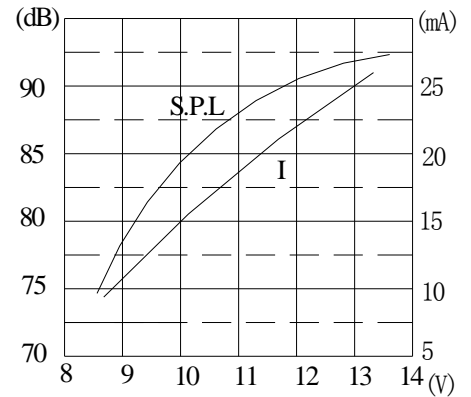


DIMENSIONS

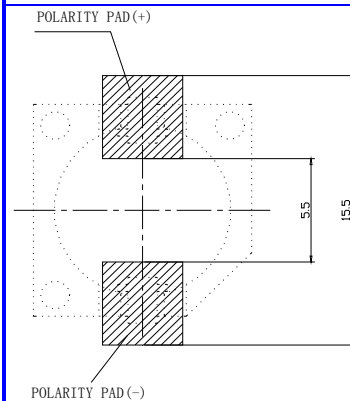
Units in: mm, Tolerance: ± 5 mm unless specified otherwise.



SPL vs. INPUT RESPONSE



LANDING 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

SOLDERING INSTRUCTION

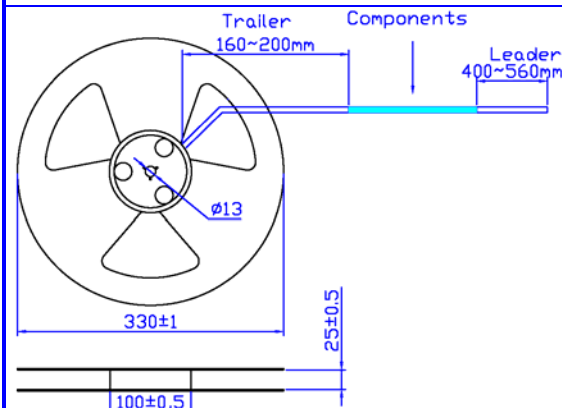
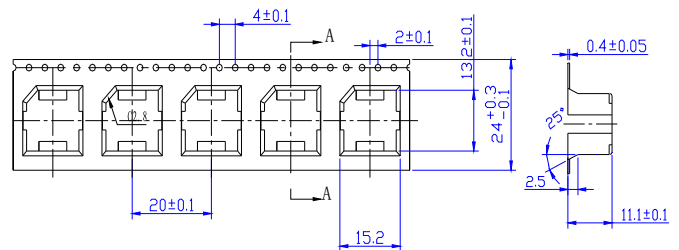
Reflow and wash not allowed

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.

TAPE & REEL DIMENSIONS

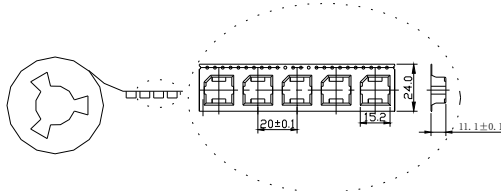
(Unit: mm)



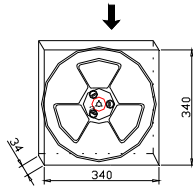
- 10 pocket holes pitch cumulative tolerance ± 0.20 mm.
- Carrier camber is 1 mm in 100 mm.
- A0 and B0 measured on a plane on a place 0.30 mm above the bottom of the pocket.
- K0 measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
- All dimensions meet EIA-481-2-A requirements.
- Reel Size 13"
- Parts per Reel 320 parts



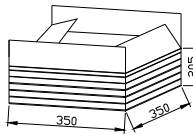
PACKAGING



320PCS/CARRUER REEK; 每卷装320只



1ROLL CARRIER REEL/INNER BOX; 1卷放入一内盒



1600PCS/CTN 每箱放1600只(5只内盒)

MARKING		TRAY	
Bundle		X1	cm
Customer PN	Dimensions	Y1	cm
Other PN (if required)		Z1	cm
Quantity		Quantity	
Lot and/or Date Code	INNER BOX		
Bundle Number	Dimensions	X2	cm
Shipping Box		Y2	cm
Customer Part Number		Z2	cm
Other PN (if required)	Quantity		
Quantity	SHIPPING BOX		
Lot and/or Date Code	Dimensions	X3	35 cm
PO Number		Y3	35 cm
Net Weight		Z3	20.5 cm
Gross Weight	No. of Inner Boxes		5
Box Number	Quantity		1,600
Number of Boxes	Approximate Weight		7kgs
Made in China			

Revision	Description	By	Date