

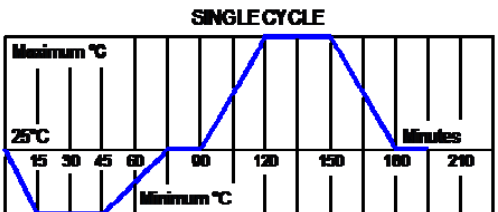
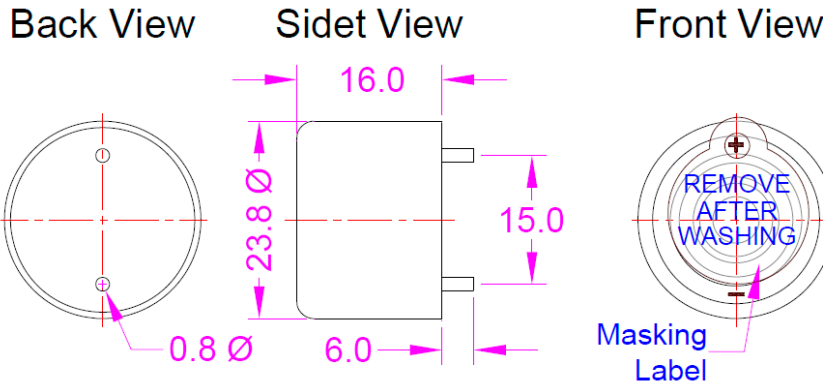




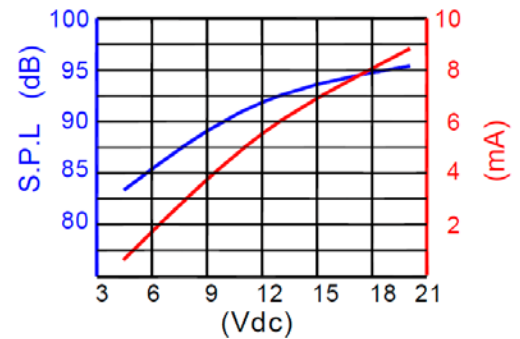
PRODUCT INFORMATION					
PART #:	CEPB238A160-320C29P15LR				Revision: 2-2016
	Piezoelectric Buzzer				
DESCRIPTION			FEATURES		
Challenge Electronics Piezoelectric Buzzer, 23.8 mm Diameter, A style case (Round No Standoffs and Top Sound Port), 16.0 mm High, 3-20 Vdc, Continuous Tone Medium Loud, 2,900 Hz. Frequency, Minimum Sound Pressure Level at 90 dB(A) at 30 cm and Nominal Voltage, PC Pins 15 mm apart, Termination, Washing Label, RoHS Compliant			<ul style="list-style-type: none"> ● RoHS, Lead Free Compliant ● REACH Compliant ● ISO 9001 Certified 		
SPECIFICATIONS					
Operating Mode	Medium Loud, Continuous Tone			Pulse Rate	
Operating Voltage	3 – 20 Vdc	Nominal Rated Voltage	12 Vdc	Resonant Frequency	2,900 ± 500 Hz.
Sound Pressure Level	Minimum 90 dB(A), at: 30 cm, Resonant Frequency, Nominal rated Voltage, Square Wave 50% Duty Cycle				
Operating Current	Maximum 10 mA, at: Resonant Frequency, Nominal rated Voltage, Square Wave				
Operating Temperature	-20°C to + 70°C	Storage Temperature	-40°C to + 80°C		
Material	Housing	Plastic, ABS777 or equal, Black		Sound Port Direction	Top
	Diaphragm	Nickel Alloy		Encapsulation	Epoxy
	Termination	Two PC Pins, 0.032" (0.8 mm) Diameter, Copper, Electro-Tin Plated			
Physical Dimensions	Diameter (D)	23.8 mm Ø		Height (H)	16.0 mm
Approximate Weight	6 grams	Removable Washing Label	Yes	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	5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram and is 3 hours long *				
Humidity Test	140 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) *				
* Reliability Test Performance	Parts should conform to original performance within ±3dB, 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				



DIMENSIONS Units in: mm Tolerance: ± 0.2 mm



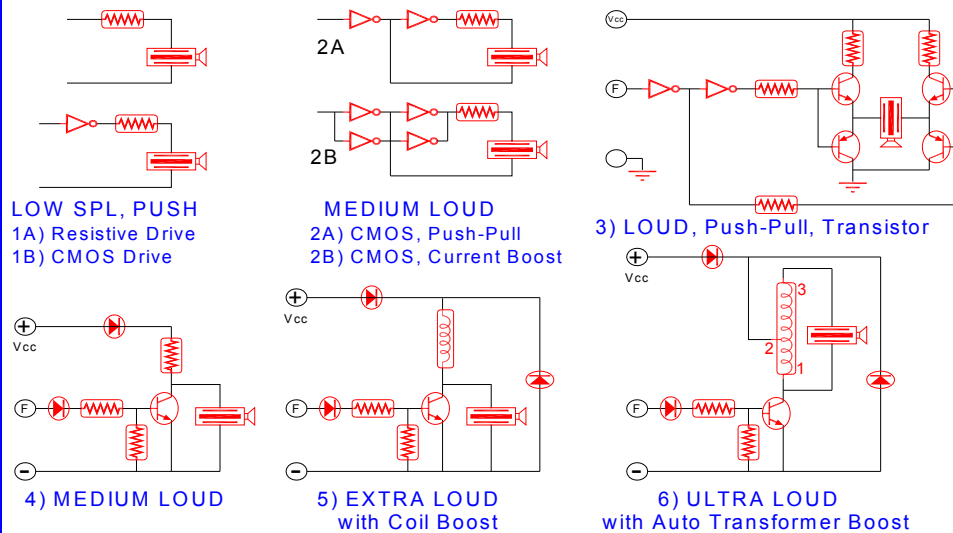
INPUT/OUTPUT RESPONSE CURVE



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



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.

PACKAGING

foam cover
 foam box
 PVC adhesive tape
 adhesive tape
 packing strap
 carrying mark

Foam cover size:320x170x13 mm
 Foam box size:320x170x27mm
 50PCS/box
 50x10=500PCS
 500PCS/sheaf

box size:505x400x380mm
 500x4=2000pcs/box

MARKING	Reel		
Reel	Reel Diameter	*	
Part Number			
Quantity	Bundle		
Lot and/or Date Code	Dimensions	X	cm
Shipping Box		Y	cm
Part Number		Z	cm
Customer PN (if required)	Quantity		
Quantity	Shipping Box		
Lot and/or Date Code	Dimensions	X	cm
PO Number		Y	cm
Net Weight		Z	cm
Gross Weight	Number of Bundles		
Box Number of Boxes	Quantity		
	Approximate Weight		Kg
Made in			China

Revision	Description	By:	Date:
1-2015	Increase storage temps from -30/+70 °C to -40/+80 °C and convert spec to new format	WS	7/7/2015
2-2016	Update Chart Label	WS	2/10/2016