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## Data Sheet

#### **Features:**

X-2629-TWT-R

- High-Output Piezo Indicator
- 12VDC rated, 2900Hz
- Top-Firing Thru-Hole Type
- Wave Solder and Wash allowed

### **Specifications**

Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	$5 \sim 14$	VDC
Current Draw at Rated Voltage	35	mA
Minimum SPL @ 10cm	107	dBA
Resonant Frequency	2,900 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	PC	-
Terminal Material	Sn Plated Copper	-
Weight	11.5	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	7c-1
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-40~+85	°C

# Measurement Method (Temperature: 25±3°C; Relative Humidity: 60% ~ 70%)

Standard Test Fixture (Distance: 10cm, 12VDC)



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# **Typical SPL vs Input Voltage**



Voltage (VDC)

### **Reliability Testing**

Type of Test	Test Specifications		
	Test chamber for 240 hours at +85°C, then rested at room		
High Temperature Test	temperature for 4 hours.		
Low Temperature Test	Test chamber for 240 hours at -40°C, then rested at room temperature for 4 hours.		
Humidity Test	Test chamber for 240 hours at +40°C with relative humidity at 90 $\pm$ 5%, then rested at room temperature for 4 hours.		
Temperature Cycle Testing	+25°C +25°C +25°C -40°C 0.5hr 0.5hr 0.25 0.5hr 0.5hr 0.25 3hours Test repeated 5 times, then rest at room temperature for 4 hours.		
Vibration Test	1.5mm amplitude vibration with 10~55Hz band of vibration frequency for 2 hours. Repeat test in X, Y, Z directions (total 6 hours).		
Solderability Test	Lead terminals immersed in rosin for 5 seconds, then in solder bath of $+270\pm5^{\circ}$ C for $3\pm1$ seconds.		
Soldering Heat Resistance	Lead terminals immersed up to 1.5mm from indicator body in solder bath of $+300\pm5^{\circ}$ C for $3\pm0.5$ seconds or $+260\pm5^{\circ}$ C for $10\pm1$ seconds.		
Drop Test	Free drop a unit from the height 75cm to the surface of 40mm thick board, three times. Repeat test in X, Y, Z directions (total 9 times).		
Load Test	Apply rated voltage for 48 hours continuously at +70°C. Apply a duty cycle of 1 minute on, 1 minute off 5000 times minimum, at rated voltage and room temperature (+25±3°C).		

Measurements should be  $\pm 10\%$  compared with initial after testing. SPL should be  $\pm 10$  dB.

# Soldering Recommendations

- Manual Soldering of 330C – 380C iron temp, time 3sec per terminal



- Wave Soldering

Dimensions



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# Packaging



#### **Specifications Revisions**

	- F		
Revision	n Description		
-	RELEASED FROM ENGINEERING	12/28/2007	
А	REVISED STORAGE AND OPERATING TEMPERATURES	10/23/2006	
В	ADDED POSITIVE TERMINCAL INDICATOR	1/14/2008	
С	REVISED TO INVENTOR 3D DRAWING TEMPLATE	4/27/2010	
D	REVISED WEIGHT	2/26/2020	

#### Note:

- 1. Unless otherwise specified:
  - A. All dimensions are in millimeters.
  - B. Default tolerances are  $\pm 0.5$  mm and angles are  $\pm 3^{\circ}$ .
- 2. Specifications subject to change or withdrawal without notice.