

PIEZOELECTRIC INVERTER 1.0W/3.6V/500VAC/2mA

1. Scope

This applies to the CFL Inverter (cold-cathode tube inverter) HBL-0215.

2. Electrical Characteristics

a. Absolute Maximum Rating

Input voltage	5.5V MAX.
Max. output power	0.6W MAX.

b. Input/Output Characteristics

The measuring circuit and method shall be as set forth in Section 4.

(Unless otherwise specified, Ta = 25°C)

Values are obtained 3 minutes after the power is turned on.

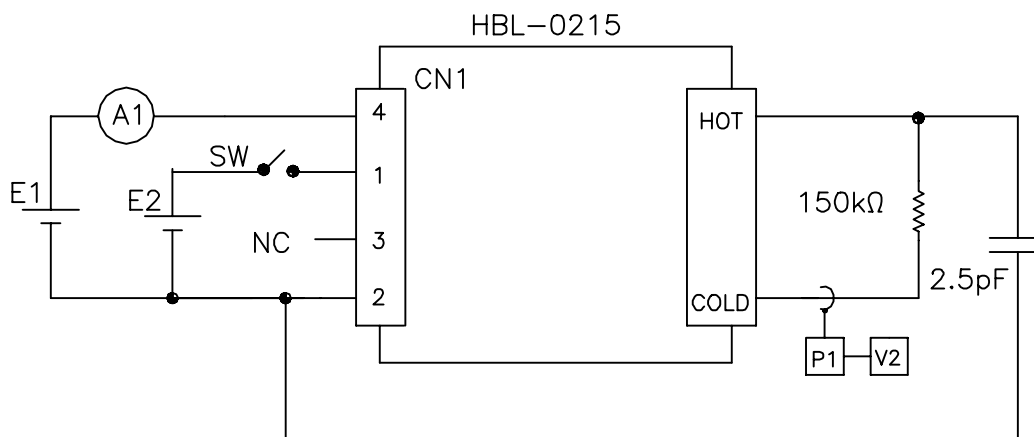
Item	Symbol	Specification
Input Voltage	Vin	5.0V \pm 5%
Output current	Io	1.5mA _{rms} \pm 10%
Operating Frequency	f	160KHz \pm 10%
Output open voltage	Voc	700V _{rms} min (at ambient temperature 0°C)
Input current	Iin	200mA MAX (Vin = 4.75V)
ON/OFF Function	ON/OFF	ON: ON/OFF terminal signal HIGH (2.5V~4V) OFF: ON/OFF terminal signal LOW (0.7V _{MAX}) To turn on the inverter, apply voltage to the Vin terminal, then on the ON/OFF terminal.

3. Input Interface Connection

CN1: SFW4R-2ST (FCI)

Pin No.	Function
1	ON/OFF
2	GND
3	NC
4	Vin

4. Electrical Characterists Measuring Circuit and Measuring Method



E1: DC regulated power supply

5.0V \pm 2%

E2: DC regulated power supply

3.0V \pm 10%

V1: DC voltmeter

3400B (YHP) or equivalent

A1: DC ammeter

Type 2011 Class 0.5 (YEW) or equivalent

P1: Probe

P6021 (Tektronix) or equivalent

FILE NAME: ACAD\MXFMR\A3122001.DWG	SCALE: NONE	REV: -	DATE: 10/25/99	SHEET 1 OF 3
TAMURA CORPORATION OF AMERICA 43352 BUSINESS PARK DRIVE • TEMECULA • CA • 92590 TEL: (909)699-1270 • FAX: 9096769482	TITLE: HBL-0215		PIEZOELECTRIC INVERTER 2.5W/5V/500VAC/4mA	
	DOCUMENT NUMBER:		P-A3-12200	
CONTENTS OF THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE				
PROPRIETY NOTICE: THIS DRAWING PRINT OR DOCUMENT AND SUBJECT MATTER DISCLOSED HEREIN ARE PROPRIETARY ITEMS TO WHICH TAMURA RETAINS THE EXCLUSIVE RIGHT OF DISSEMINATION, REPRODUCTION, MANUFACTURE AND SALE. THIS DRAWING, PRINT OR DOCUMENT IS SUBMITTED IN CONFIDENCE FOR CONSIDERATION BY THE RECIPIENT ALONE UNLESS PERMISSION FOR FURTHER DISCLOSURE IS EXPRESSLY GRANTED IN WRITING				

5. Reliability Test Item

Item	Specification
High Temperature Storage	Ta=70°C 240H
Low Temperature Storage	Ta=-20°C 240H
High Temperature and Humidity Storage	Ta=40°C 95% 240H
Temperature Cycle	-20 ~ 70°C 5 Cycles
High Temperature Operation	Ta=60°C Vin 5.25V Iout 1.5mA rms 500H (with equivalent load)
ON/OFF test	1 ON, 1 OFF, 5000 cycles (at Vin=5.25V, Iout=1.5mA rms and equivalent load)
Vibration	Acceleration 3G, Frequency 10~55Hz, Sweep 45 min, 3 axis, 1 time
Shock	Acceleration 80G, Acting Time 11 ms 3 axis, 3 times

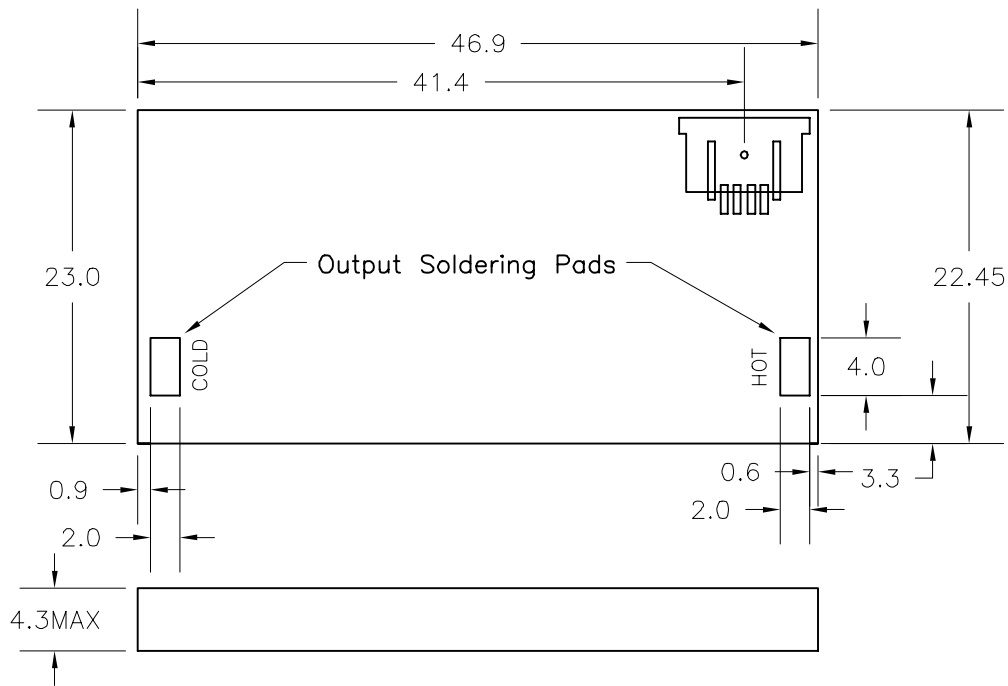
After the end of each test, leave the product at room temperature and humidity for 24 hours. The Electrical and Mechanical characteristics shall remain within spec.

6. Precautions for Handling

Applying excessive shock or bending the unit may cause component damage.
When transporting this product, use materials that will not develop an electrical charge.
When handling this product, be sure to wear antistatic wrist bands or other protective equipment to prevent the product from being destroyed by any electric charge.

FILE NAME: ACAD\MXFMR\A3122002.DWG		SCALE: NONE	REV: -	DATE: 10/25/99	SHEET 2 OF 3
TAMURA CORPORATION OF AMERICA 43352 BUSINESS PARK DRIVE • TEMECULA • CA • 92590 TEL: (909)699-1270 • FAX: 9096769482		TITLE:		PIEZOELECTRIC INVERTER	
		HBL-0215		1.0W/3.6V/500VAC/2mA	
CONTENTS OF THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE		DOCUMENT NUMBER:		P-A3-12200	
		PROPRIETY NOTICE: THIS DRAWING PRINT OR DOCUMENT AND SUBJECT MATTER DISCLOSED HEREIN ARE PROPRIETARY ITEMS TO WHICH TAMURA RETAINS THE EXCLUSIVE RIGHT OF DISSEMINATION, REPRODUCTION, MANUFACTURE AND SALE. THIS DRAWING, PRINT OR DOCUMENT IS SUBMITTED IN CONFIDENCE FOR CONSIDERATION BY THE RECIPIENT ALONE UNLESS PERMISSION FOR FURTHER DISCLOSURE IS EXPRESSLY GRANTED IN WRITING.			

7. Outline Dimensions

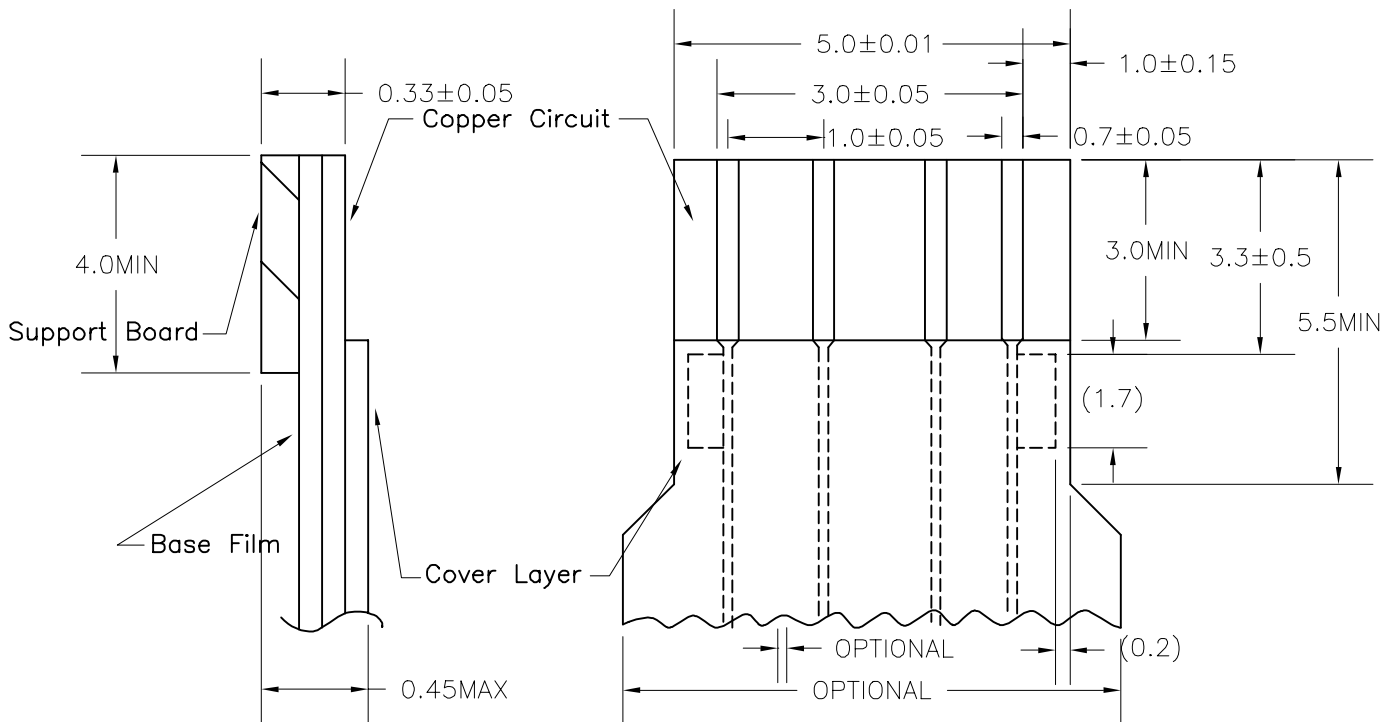


CN1: SFW4R-2ST (FCI) Mating FPC

Output: Soldering Pad

- ① ON/OFF
- ② GND
- ③ NC
- ④ Vin

Recommended FPC dimensions for SFW4R-2ST



FILE NAME: ACAD\MXFMR\A312203.DWG		SCALE: NONE	REV: -	DATE: 10/25/99	SHEET 3 OF 3
TAMURA CORPORATION OF AMERICA 43352 BUSINESS PARK DRIVE • TEMECULA • CA • 92590 TEL: (909)699-1270 • FAX: 9096769482		TITLE:		PIEZOELECTRIC INVERTER	
		HBL-0215		1.0W/3.6V/500VAC/2mA	
CONTENTS OF THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE		DOCUMENT NUMBER:		P-A3-12200	
PROPRIETY NOTICE: THIS DRAWING PRINT OR DOCUMENT AND SUBJECT MATTER DISCLOSED HEREIN ARE PROPRIETARY ITEMS TO WHICH TAMURA RETAINS THE EXCLUSIVE RIGHT OF DISSEMINATION, REPRODUCTION, MANUFACTURE AND SALE. THIS DRAWING, PRINT OR DOCUMENT IS SUBMITTED IN CONFIDENCE FOR CONSIDERATION BY THE RECIPIENT ALONE UNLESS PERMISSION FOR FURTHER DISCLOSURE IS EXPRESSLY GRANTED IN WRITING.					