

# On-board type Piezo Driver

PZM-B Series

1131-01A



## FEATURES

- Compact on-board type
- Power supply + amplifier integrated type
- Ideal as a drive for piezo positioner
- Suitable for wide range of capacity, from 0.01 $\mu$ F to 10 $\mu$ F

## SUMMARY

This is an on-board module with power supply and amplifier integrated together designed for driving piezo device. Especially peak current is enhanced so that it is ideal for driving positioner and suitable for wide range of capacity of piezo.

## LINEUP

Output voltage (Vdc)	Rated output current Iave *1 (mAave)	Peak output current Ip less than 10ms (mA)	MODEL	Frequency response				Output resistor ( $\Omega$ )
				Sine wave (-3dB)		Rise time (approx. value with 1 $\mu$ F load) *2		
				RL resistive load	1 $\mu$ F load	$\Delta V=100V$	0 to Max V	
0 to +100	1	10	PZM-0.1PB	DC to 20kHz	DC to 4Hz	10ms	10ms	300
0 to +150	0.6	6	PZM-0.15PB	DC to 10kHz	DC to 1.5Hz	170ms	250ms	500
0 to +300	0.3	3	PZM-0.3PB	DC to 5kHz	DC to 0.4Hz	333ms	1,000ms	2k

\*1: Output current when DC is 50% of rating current.

\*2: Calculated from peak output current value (10ms or less can be output) ( $Tr=C \cdot Vp-p/Ip$ ).

Calculated from  $Tr=Tr \cdot Ip/Iave$  when calculated value of  $Tr$  exceeds the time in which peak current can be output (10ms).

## SPECIFICATIONS

<b>Input voltage /current</b>	12Vdc $\pm$ 1V, 150mAtp.
<b>Output control</b>	External control voltage Vcon-in=0V to +10V <small>Note 1)</small> (Input impedance more than 10k $\Omega$ )
<b>Regulation</b>	0.1%(for 12V $\pm$ 1V input change) <small>Note 2)</small>
<b>Ripple</b>	0.05%rms (with 50nF load at maximum output voltage)
<b>Stability</b>	0.02%/H <small>Note 2)</small>
<b>Temperature coefficient</b>	0.02%/ $^{\circ}$ C <small>Note 2)</small>
<b>Protection circuit</b>	Input reverse connection, intermittent output short-circuit protection <small>Note 3)</small>
<b>Operation temperature</b>	0 $^{\circ}$ C to +50 $^{\circ}$ C
<b>Storage temperature</b>	-40 $^{\circ}$ C to +85 $^{\circ}$ C
<b>Humidity</b>	20 to 80%RH(no condensation)

Note 1) Off-set voltage when Vcon-in=0V is less than  $\pm$ 0.5% of rating output.

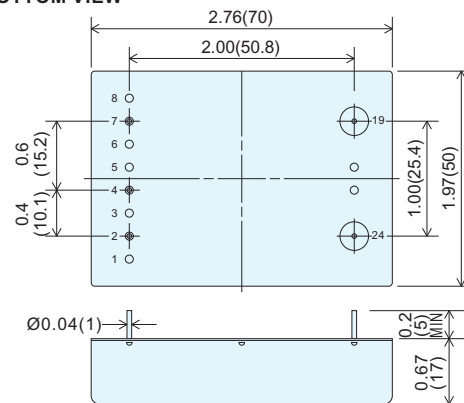
Note 2) Value at max rating voltage with resistive load in DC operation.

Note 3) One short circuit must be less than 5 seconds and not continuous. Do not repeat short circuits as this shortens lifetime of the product. We recommend PZJ series for applications with intermittent short circuits.

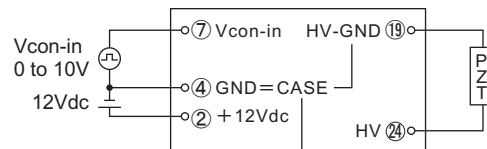
\* Please note that on-board-type products do not come with instruction manual.

## DIMENSIONS inch(mm)

### BOTTOM VIEW



## CONNECTION DIAGRAM



\* GND=CASE and HV GND is connected internally.