

RE46C101

Piezoelectric Horn Driver and LED Driver Circuit Product Specification

General Description

This product is intended for applications using a self oscillating piezoelectric horn although it can be used in direct drive applications. Feedback control and a driver circuit are provided as well as a horn enable function. The design also provides an open drain Nchannel driver suitable for use with a light emitting diode.

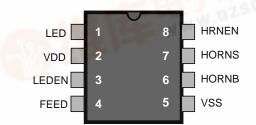
Features

- Low Quiescent Current (<100na)
- Low Driver Ron 20Ω typical at 9V
- Wide Operating Voltage Range
- 8 Pin DIP and SO Packages
- Available in Standard Packaging or RoHS Compliant Pb Free Packaging

Applications

Smoke detectors CO Detectors Personal Security Products Electronic Toys

Pin Configuration



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Supply Voltage	V _{DD}	18	V
Input Voltage Range Except FEED	V _{in}	3 to V _{dd} +.3	V
FEED Input Voltage Range	V _{infd}	-10 to +22	V
Input Current except FEED	l _{in}	10	mA
Operating Temperature	T _A	0 to 50	°C
Storage Temperature	T _{STG}	-55 to 125	°C
Maximum Junction Temperature	TJ	150	°C

Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only and operation at these conditions for extended periods may affect device reliability.

This product utilizes CMOS technology with static protection; however proper ESD prevention procedures should be used when handling this product. Damage can occur when exposed to extremely high static electrical charge.

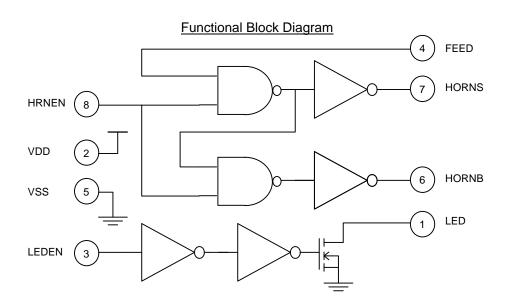


DS22163A-page 1



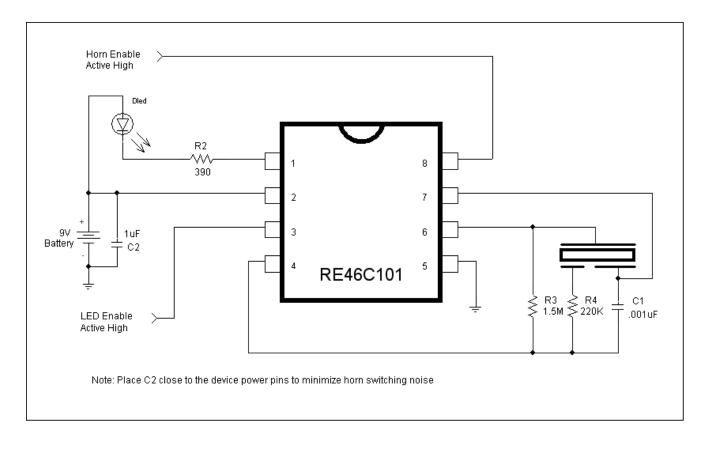
DC Electrical Characteristics at TA = 25°C, VDD=9V, Typical Application (unless otherwise noted)

		Test			Limits		
Parameter	Symbol	Pin	Test Conditions	Min	Тур	Max	Units
Supply Voltage	V _{DD}	2	Operating	6	9	16	V
Supply Current	I _{DD1}	2	HRNEN,LEDEN and FEED=0V			100	nA
Input Voltage Low	V _{IL1}	3,8				1	V
Input Voltage High	V _{IH1}	3,8		2.3			V
Input Leakage Low	I _{IL1}	3,8	Vin=VSS			-100	nA
	I _{LFD}	4	FEED=-10V			-50	uA
Input Leakage High	I _{IH1}	3.8	Vin=VDD			100	nA
	I _{HFD}	4	FEED=22V			50	uA
Output Voltage Low	V _{OL1}	6,7	lol=16mA		.3	.5	V
	V _{OL2}	6,7	lol=16mA, VDD=7.2V			.9	V
	V _{OL3}	1	lol=10mA, VDD=7.2V		.5	1	V
Output Voltage High	V _{Oh1}	6,7	loh=-16mA	8.5	8.7		V
	V _{Oh2}	6,7	Ioh=-16mA, VDD=7.2V	6.3			V





Typical Application



RE46C101

Piezoelectric Horn Driver and LED Driver Circuit

ProductSpecificatio共应商

Information contained in this publication regarding device applications and the like is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION, INCLUDING BUT NOT LIMITED TO ITS CONDITION, QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR PURPOSE. Microchip disclaims all liability arising from this information and its use. Use of Microchip devices in life support and/or safety applications is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights.



Trademarks

The Microchip name and logo, the Microchip logo, Accuron, dsPIC, KEELOQ, KEELOQ logo, MPLAB, PIC, PICmicro, PICSTART, rfPIC, SmartShunt and UNI/O are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

FilterLab, Hampshire, Linear Active Thermistor, MXDEV, MXLAB, SEEVAL, SmartSensor and The Embedded Control Solutions Company are registered trademarks of Microchip Technology Incorporated in the U.S.A.

Analog-for-the-Digital Age, Application Maestro, CodeGuard, dsPICDEM, dsPICDEM.net, dsPICworks, dsSPEAK, ECAN, ECONOMONITOR, FanSense, In-Circuit Serial Programming, ICSP, ICEPIC, Mindi, MiWi, MPASM, MPLAB Certified logo, MPLIB, MPLINK, mTouch, nanoWatt XLP, PICkit, PICDEM, PICDEM.net, PICtail, PIC³² logo, PowerCal, PowerInfo, PowerMate, PowerTool, REAL ICE, rfLAB, Select Mode, Total Endurance, TSHARC, WiperLock and ZENA are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

SQTP is a service mark of Microchip Technology Incorporated in the U.S.A.

All other trademarks mentioned herein are property of their respective companies.

© 2009, Microchip Technology Incorporated, Printed in the U.S.A., All Rights Reserved.

Printed on recycled paper.



Microchip received ISO/TS-16949:2002 certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona; Gresham, Oregon and design centers in California and India. The Company's quality system processes and procedures are for its PIC® MCUs and dsPIC® DSCs, KEELOQ® code hopping devices, Serial EEPROMs, microperipherals, nonvolatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001:2000 certified.