



1997 CD-ROM Quick Reference

Micrel 1997 Databook

(Databook.pdf)

Designing with Low-Dropout Voltage Regulators

(LDOBk.pdf)

Designing PCMCIA Power Control

(PCCardBk.pdf)

Adobe™ Acrobat™ Reader Commands

show page

show bookmarks

show thumbnails

grab to push page

zoom

select text

BEGINNING of book

BACKWARD one page

FORWARD one page

END of book

UNDO

REDO

100% page view

FIT TO WINDOW

FIT WIDTH TO WINDOW

find text

The screenshot shows the Adobe Acrobat Reader interface. At the top is a toolbar with icons for showing pages, thumbnails, zoom, and navigation. Below the toolbar is a title bar displaying "mic5031.pdf". The main content area shows a document page with the MICREL logo and the title "MIC5031 High-Speed High-Side MOSFET Driver". The page is divided into sections for "General Description" and "Features". At the bottom is a status bar showing "Page 1 of 6", a magnifying glass icon with "55%", and a page size of "8.5 x 11 in".

scroll
and
change
pages

page number

view size

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Home, End, Page Up, and Page Down
are active keyboard functions

Selecting A *Databook* Chapter

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**Micrel Semiconductor
1997 Databook**

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cursor indicates link locations

“Click” on item to navigate the **Databook**.

Tables of contents and **selection guides** are fully linked.

Navigating *Databook* Datasheets

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MIC1557
HyBility™ RC Timer / Oscillator

Advance Information

General Description

The MIC1555 HyBility™ CMOS RC timer/oscillator and MIC1557 HyBility™ CMOS RC oscillator are designed to provide rail-to-rail pulses for precise time delay or frequency generation.

The devices are similar in function to the industry standard '555', without a frequency control (FC) pin or an open-collector discharge (D) pin. The threshold pin (TH) has precedence over the trigger (TR) input, ensuring that the BiCMOS output is off when TH is high.

The MIC1555 may be used as an astable (oscillator) or monostable (one-shot) with separate threshold and trigger inputs. In the one-shot mode, the output pulse width is precisely controlled by an external resistor and a capacitor. Time delays may be accurately controlled from microseconds to hours. In the oscillator mode, the output is used to provide precise feedback, with a minimum of one resistor and one capacitor producing a 50% duty cycle square wave.

The MIC1557 is designed for astable (oscillator) operation only, with a chip select/reset (CS) input for low power shut-down. One resistor and one capacitor provide a 50% duty cycle square wave. Other duty-cycle ratios may be produced using two diodes and two resistors.

The MIC1557 is powered from a +2.7V to +18V supply voltage.

The MIC1555/7 is available in the SOT-23-5 lead package, and is rated for -40°C to +85°C ambient temperature range.

Features

- +2.7V to +18V operation
- Low current
 - 1µA typical shutdown mode (MIC1557)
 - 200µA typical (TRG and THR low) at 3V supply
- Timing from microseconds to hours
- TTL compatible inputs and output
- "Zero" leakage trigger and threshold inputs
- 50% square wave with one Resistor, one Capacitor
- <15Ω output on resistance
- No output cross-conduction current spikes
- <0.005%/°C temperature stability
- <0.005%/V supply stability
- Small SOT-23-5 surface mount package

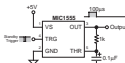
Applications

- Precision timer
- Pulse generating/threshold precedence over trigger input
- Sequential timing
- Time-delay generator
- Missing pulse detector
- Monopower oscillator to SMPS
- Charge pump driver
- LED driver
- Voltage converter
- Linear sweep generator
- Variable frequency and duty cycle oscillator
- Isolated feedback for power supplies

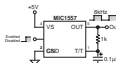
Ordering Information

Part Number	Temperature Range	Package
MIC1555B	-40°C to +85°C	SOT-23-5
MIC1557B	-40°C to +85°C	SOT-23-5

Typical Applications

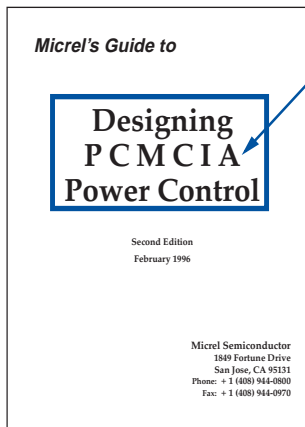


Monostable (One-Shot)



Astable (Oscillator)

Navigating the *Designing PCMCIA Power Control Book*



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Designing PCMCIA Power Control

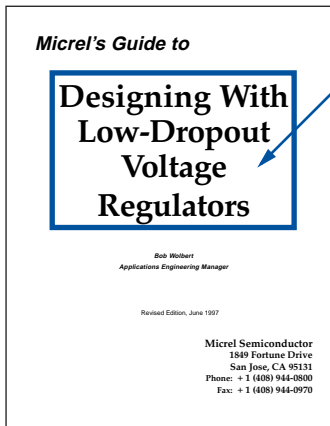
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Installation Instructions

Install the Adobe™ Acrobat™ Reader for your computer:

To Install Acrobat Reader 3.0 for Windows 3.x, run
ACROREAD → WIN → READER → 16BIT → SETUP.EXE

To Install Acrobat Reader 3.0 for Windows 95 and NT, run
ACROREAD → WIN → READER → 32BIT → SETUP.EXE

To install Acrobat Reader 3.0 for Macintosh, double-click
ACROREAD → MAC → Reader → Reader → Install Acrobat Reader 3.0

To install Acrobat Reader 3.0 for SunOS™, Sun™ Solaris®, HP-UX, Silicon
Graphics® IRIX™, IBM® AIX™, see the installation information:
ACROREAD → UNIX → Reader → INSTGUID.TXT

Use the Acrobat Reader to open and view any .pdf file on the CD-ROM.

See <http://www.adobe.com> for Digital UNIX®, DOS, Linux®, and OS/2 Warp information and readers.

See <http://www.micrel.com> for the latest product information.

Notes:

- Pay attention to what you print. **“Print All Pages” will print 979 pages!**
- Print areas vary from printer to printer. You may need to select a “Fit to Page” option, if available.
- Individual data sheet files (DATASHTS subdirectory/folder) are also included.