

CUI DEVICES

date 10/30/2019

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MODEL: PJ-002A | DESCRIPTION: DC POWER JACK

FEATURES

- 2.0 mm center pin
- 2.5 A rating
- right-angle orientation
- through hole





SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
rated input voltage			24		Vdc
rated input current				2.5	А
contact resistance ¹	between terminal and mating plug between terminal in a closed circuit			50 30	mΩ
insulation resistance	at 500 Vdc	100			MΩ
voltage withstand	at 50/60Hz for 1 minute			500	Vac
insertion/withdrawal force		0.3		3	kg
terminal strength	any direction for 10 seconds			500	g
operating temperature		-25		85	°C
life			5,000		cycles
flammability rating	UL94V-0				
RoHS	yes				

Note: 1. When measured at a current of less than 100 mA/1 kHz

SOLDERABILITY

parameter	conditions/description	min	typ	max	units
wave soldering	dipped in solder pot for 5 \pm 0.5 seconds	255	260	265	°C



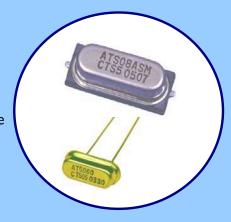
ATS/ATS-SM SERIES



QUARTZ CRYSTAL

FEATURES

- Standard HC-49/US [thru-hole] and HC-49/US-SM [surface mount] Packages
- Stable Frequency Over Temperature and Drive Level
- Fundamental and 3rd Overtone Crystals
- Frequency Range 3.2 64 MHz
- Frequency Tolerance, ±30 ppm Standard
- Frequency Stability, ±50 ppm Standard
- Operating Temperature, -20°C to +70°C Standard, -40°C to +85°C Available
- Tape & Reel Packaging Available
- RoHS/Green Compliant [6/6]



APPLICATIONS

The ATS/ATS-SM crystal series offers excellent long-term stability and reliability in a proven resistance-weld metal package. The excellent shock performance makes it suitable for microprocessor, telecommunication, industrial, consumer electronics and networking applications.

ORDERING INFORMATION **ATS** ATS-SM ATS | | SM - | | PRODUCT OPTIONS TEMPERATURE RANGE OPTIONS INS - Insulation Spacer Blank - Standard, -20°C to +70°C E - Extended Temperature Range, TEMPERATURE RANGE OPTIONS -40°C to +85°C Blank - Standard, -20°C to +70°C E - Extended Temperature Range, PACKAGING OPTIONS -40°C to +85°C Blank - Bulk 1 - Tape and Reel ** PACKAGING OPTIONS Blank - Bulk FREQUENCY 1 - Radial Taping (Ammopak) * Product Frequency/Load Code. [3 to 4 digits] FREQUENCY Refer to Standard Product Part Numbers Product Frequency/Load Code. tables on Pages 2 and 3. [3 to 4 digits] Refer to Standard Product Part Numbers ** Standard packaging is tape and reel. tables on Pages 2 and 3. CTS Distributors may use -T for tape and reel indicator. * Standard packaging is bulk in a bag. **Non-Standard Ordering Options**

Contact your local CTS Representative or CTS Inside Sales Representative for assistance.





1N5819HW

1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Product Summary (@ TA = +25°C)

V _{RRM} (V)	lo (A)	V _{F(MAX)} (mV)	IR(MAX) (μ A)
40	1.0	450	50

Description and Applications

The device is a single rectifier offering low V_{F} and excellent high temperature stability. This device is ideal for use in general rectification applications:

- For Use in Low Voltage, High Frequency Inverters
- Free Wheeling
- Polarity Protection Application

Features and Benefits

- High Surge Capability
- Low Power Loss, High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please <u>contact us</u> or your local Diodes representative. https://www.diodes.com/quality/product-definitions/
- An Automotive-Compliant Part is Available Under Separate Datasheet (<u>1N5819HWQ</u>)

Mechanical Data

- Case: SOD123
- Plastic Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Polarity: Cathode Band
- Leads: Matte Tin Finish Annealed over Alloy 42 Leadframe (Lead Free Plating) Solderable per MIL-STD-202, Method 208@3
- Weight: 0.01 grams (Approximate)



Device Schematic



Top View

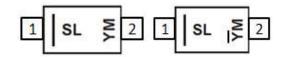
Ordering Information (Note 4)

Part Number	Case	Packaging
1N5819HW-7-F	SOD123	3000/Tape & Reel

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
- 2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen and Antimony free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



SL = Product Type Marking Code YM & \overline{Y}M = Date Code Marking Y & \overline{Y} = Year (ex: H = 2020) M = Month (ex: 9 = September)

Date Code Key

Year	2003		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Code	Р		I	İ	J	K	L	М	N	0	Р	R
NO. (1										a (
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec



24AA512/24LC512/24FC512

512K I²C[™] Serial EEPROM

Device Selection Table

Part Number	Vcc Range	Max. Clock Frequency	Temp. Ranges
24AA512	1.7-5.5V	400 kHz ⁽¹⁾	I
24LC512	2.5-5.5V	400 kHz	I, E
24FC512	1.7-5.5V	1 MHz ⁽²⁾	I

Note 1: 100 kHz for Vcc < 2.5V 2: 400 kHz for Vcc < 2.5V

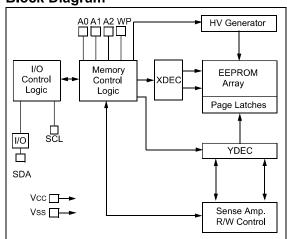
Features:

- Single Supply with Operation down to 1.7V for 24AA512 and 24FC512 Devices, 2.5V for 24LC512 Devices
- · Low-Power CMOS Technology:
 - Active current 400 uA, typical
 - Standby current 100 nA, typical
- 2-Wire Serial Interface, I²C[™] Compatible
- · Cascadable for up to Eight Devices
- Schmitt Trigger Inputs for Noise Suppression
- · Output Slope Control to Eliminate Ground Bounce
- 100 kHz and 400 kHz Clock Compatibility
- Page Write Time 5 ms max.
- · Self-Timed Erase/Write Cycle
- · 128-Byte Page Write Buffer
- Hardware Write-Protect
- ESD Protection >4000V
- · More than 1 Million Erase/Write Cycles
- · Data Retention > 200 years
- Packages Include 8-lead PDIP, SOIJ, SOIC, TSSOP, DFN, Chip Scale and 14-lead TSSOP
- · Pb-Free and RoHS Compliant
- · Temperature Ranges:
 - Industrial (I): -40°C to +85°C
 - Automotive (E):-40°C to +125°C

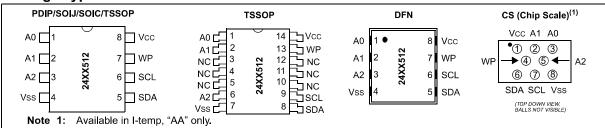
Description:

The Microchip Technology Inc. 24AA512/24LC512/24FC512 (24XX512*) is a 64K x 8 (512 Kbit) Serial Electrically Erasable PROM, capable of operation across a broad voltage range (1.7V to 5.5V). It has been developed for advanced, low-power applications such as personal communications and data acquisition. This device also has a page write capability of up to 128 bytes of data. This device is capable of both random and sequential reads up to the 512K boundary. Functional address lines allow up to eight devices on the same bus, for up to 4 Mbit address space. This device is available in the standard 8-pin plastic DIP, SOIJ, SOIC, TSSOP, DFN, and 14-lead TSSOP packages. The 24AA512 is also available in the 8-lead Chip Scale package.

Block Diagram



Package Type



^{* 24}XX512 is used in this document as a generic part number for the 24AA512/24LC512/24FC512 devices.





PEC12R-4215F-S0024 BOURNS

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Spec No. :DS22-2000-072 Effective Date: 12/29/2021

Revision: H

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4



LPC1110/11/12/13/14/15

32-bit ARM Cortex-M0 microcontroller; up to 64 kB flash and 8 kB SRAM

Rev. 9.2 — 26 March 2014

Product data sheet

1. General description

The LPC1110/11/12/13/14/15 are an ARM Cortex-M0 based, low-cost 32-bit MCU family, designed for 8/16-bit microcontroller applications, offering performance, low power, simple instruction set and memory addressing together with reduced code size compared to existing 8/16-bit architectures.

The LPC1110/11/12/13/14/15 operate at CPU frequencies of up to 50 MHz.

The peripheral complement of the LPC1110/11/12/13/14/15 includes up to 64 kB of flash memory, up to 8 kB of data memory, one Fast-mode Plus I²C-bus interface, one RS-485/EIA-485 UART, up to two SPI interfaces with SSP features, four general purpose counter/timers, a 10-bit ADC, and up to 42 general purpose I/O pins.

Remark: The LPC111x series consists of the LPC1100 series (parts LPC111x/101/201/301), LPC1100L series (parts LPC111x/002/102/202/302), and the LPC1100XL series (parts LPC111x/103/203/303/323/333). The LPC1100L and LPC1100XL series include the power profiles, a windowed watchdog timer, and a configurable open-drain mode.

For related documentation, see Section 16 "References".

2. Features and benefits

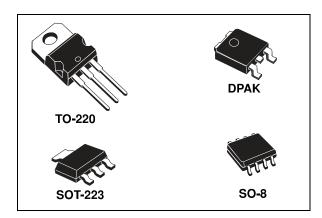
- System:
 - ◆ ARM Cortex-M0 processor, running at frequencies of up to 50 MHz.
 - ARM Cortex-M0 built-in Nested Vectored Interrupt Controller (NVIC).
 - Non-Maskable Interrupt (NMI) input selectable from several input sources (LPC1100XL series only).
 - Serial Wire Debug.
 - System tick timer.
- Memory:
 - ◆ 64 kB (LPC1115), 56 kB (LPC1114/333), 48 kB (LPC1114/323), 32 kB (LPC1114/102/201/202/203/301/302/303), 24 kB (LPC1113), 16 kB (LPC1112), 8 kB (LPC1111), or 4 kB (LPC1110) on-chip flash programming memory.
 - 256 byte page erase function (LPC1100XL series only)
 - ♦ 8 kB, 4 kB, 2 kB, or 1 kB SRAM.
 - ◆ In-System Programming (ISP) and In-Application Programming (IAP) via on-chip bootloader software.





Adjustable and fixed low drop positive voltage regulator

Datasheet - production data



Features

- Low dropout voltage (1 V typ.)
- 2.85 V device performances are suitable for SCSI-2 active termination
- Output current up to 800 mA
- Fixed output voltage of: 1.2 V, 1.8 V, 2.5 V, 3.3 V, 5.0 V
- Adjustable version availability (V_{RFF} = 1.25 V)
- Internal current and thermal limit
- Available in ± 1 % (at 25 °C) and 2 % in full temperature range
- Supply voltage rejection: 75 dB (typ.)

Description

The LD1117 is a low drop voltage regulator able to provide up to 800 mA of output current, available even in adjustable version $(V_{RFF} = 1.25 \text{ V})$. Concerning fixed versions, are offered the following output voltages: 1.2 V, 1.8 V, 2.5 V, 2.85 V, 3.3 V and 5.0 V. The device is supplied in: SOT-223, DPAK, SO-8 and TO-220. The SOT-223 and DPAK surface mount packages optimize the thermal characteristics even offering a relevant space saving effect. High efficiency is assured by NPN pass transistor. In fact in this case, unlike than PNP one, the quiescent current flows mostly into the load. Only a very common 10 μF minimum capacitor is needed for stability. On chip trimming allows the regulator to reach a very tight output voltage tolerance, within ± 1 % at 25 °C. The adjustable LD1117 is pin to pin compatible with the other standard. Adjustable voltage regulators maintaining the better performances in terms of drop and tolerance.

Document No.: FT 000053 Clearance No.: FTDI# 38

Future Technology Devices International Ltd. FT232R USB UART IC Datasheet



The FT232R is a USB to serial UART interface • with the following advanced features:

- Single chip USB to asynchronous serial data transfer interface.
- Entire USB protocol handled on the chip. No USB specific firmware programming required.
- Fully integrated 1024 bit EEPROM storing device descriptors and CBUS I/O configuration.
- Fully integrated USB termination resistors.
- Fully integrated clock generation with no external crystal required plus optional clock output selection enabling a glue-less interface to external MCU or FPGA.
- Data transfer rates from 300 baud to 3 Mbaud (RS422, RS485, RS232) at TTL levels.
- 128 byte receive buffer and 256 byte transmit buffer utilising buffer smoothing technology to allow for high data throughput.
- FTDI's royalty-free Virtual Com Port (VCP) and Direct (D2XX) drivers eliminate the requirement for USB driver development in most cases.
- Unique USB FTDIChip-ID[™] feature.
- Configurable CBUS I/O pins.
- · Transmit and receive LED drive signals.
- UART interface support for 7 or 8 data bits, 1 or 2 stop bits and odd / even / mark / space / no parity

- FIFO receives and transmits buffers for high data throughput.
- Synchronous and asynchronous bit bang interface options with RD# and WR# strobes.
- Device supplied pre-programmed with unique USB serial number.
- Supports bus powered, self-powered and highpower bus powered USB configurations.
- Integrated +3.3V level converter for USB I/O.
- Integrated level converter on UART and CBUS for interfacing to between +1.8V and +5V logic.
- True 5V/3.3V/2.8V/1.8V CMOS drive output and TTL input.
- Configurable I/O pin output drive strength.
- Integrated power-on-reset circuit.
- Fully integrated AVCC supply filtering no external filtering required.
- UART signal inversion option.
- +3.3V (using external oscillator) to +5.25V (internal oscillator) Single Supply Operation.
- Low operating and USB suspend current.
- Low USB bandwidth consumption.
- UHCI/OHCI/EHCI host controller compatible.
- USB 2.0 Full Speed compatible.
- -40°C to 85°C extended operating temperature range.
- Available in compact Pb-free 28 Pin SSOP and QFN-32 packages (both RoHS compliant).

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