mosaic

PUMA68F16006X - 70/90/12

Issue 5.1 April 2001

Description

The PUMA68 range of devices provide a high density surface mount industry standard memory solution which may accommodate various memory technologies including SRAM, EEPROM and Flash. The devices are designed to offer a defined upgrade path and may be user configured as 8, 16 or 32 bits wide.

The PUMA68F16006X is a 512Kx32 FLASH module housed in a 68 Jleaded package which complies with the JEDEC 68 PLCC standard. Access times of 70, 90 or 120ns are available. The 5V device is available to commercial and industrial temperature grade.

1M x 32, and 2Mx32 FLASH PUMA68 devices are available in the same footprint to offer a defined upgrade path.

Features

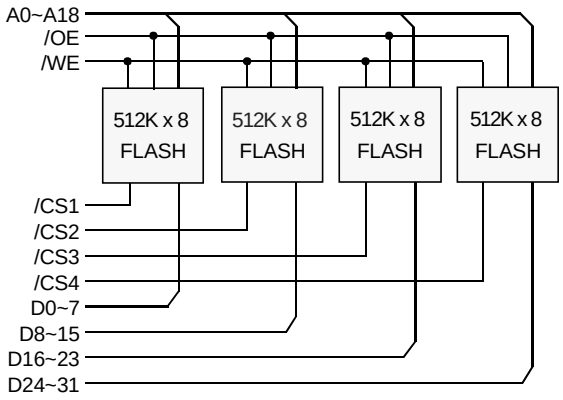
- Access times of 70, 90 and 120ns.
- 5V ± 10%.
- Commercial and Industrial temperature grades
- JEDEC Standard 68 PLCC footprint.
- Industry standard pinout.
- May be organised as 512Kx32, 1Mx16 or 2Mx8
- User configurable as 8 / 16 / 32 bits wide.
- 10 Year Data Retention
- Write Erase Cycle Endurance 100,000 (min)
- Automatic Write/Erase by Embedded Algorithm
- Uniform Sector Device.

Package Details

Plastic 'J' Leaded JEDEC PLCC

Max. Dimensions (mm) - 25.27 x 25.27 x 5.08

Block Diagram



Pin Definition

See page 2.

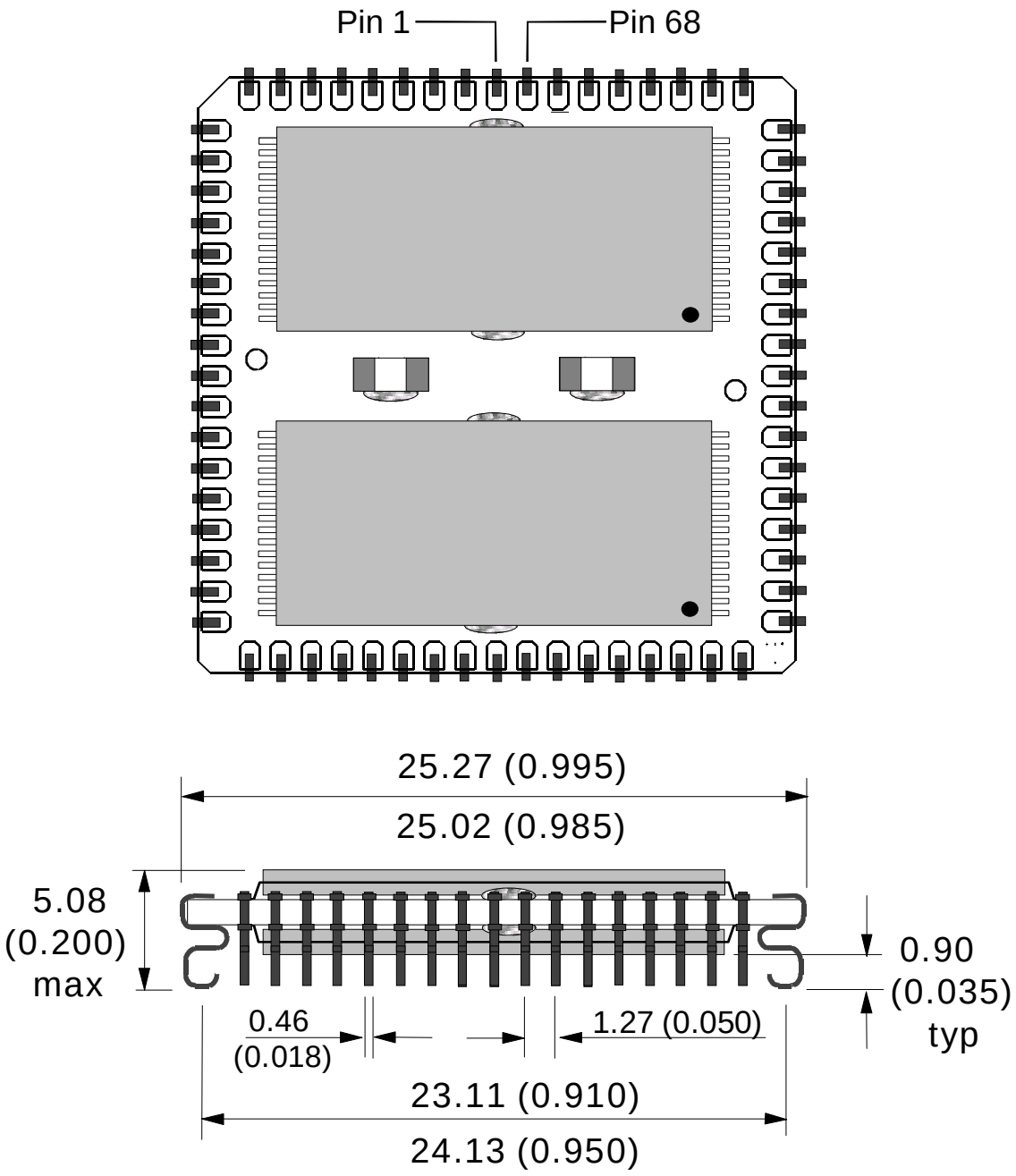
Pin Functions

Description	Signal
Address Input	A0~A18
Data Input/Output	D0~D31
Chip Select	/CS1~4
Write Enable	/WE
Output Enable	/OE
No Connect	NC
Power	V_{CC}
Ground	V_{SS}

Pin Definition - PUMA68F16006X

Pin	Signal	Pin	Signal
1	V_{CC}	35	V_{CC}
2	NC	36	A13
3	/CS1	37	A12
4	/CS2	38	A11
5	/CS3	39	A10
6	/CS4	40	A9
7	A17	41	A8
8	A18	42	A7
9	D16	43	D0
10	D17	44	D1
11	D18	45	D2
12	D19	46	D3
13	V_{SS}	47	V_{SS}
14	D20	48	D4
15	D21	49	D5
16	D22	50	D6
17	D23	51	D7
18	V_{CC}	52	V_{CC}
19	D24	53	D8
20	D25	54	D9
21	D26	55	D10
22	D27	56	D11
23	V_{SS}	57	V_{SS}
24	D28	58	D12
25	D29	59	D13
26	D30	60	D14
27	D31	61	D15
28	A6	62	A14
29	A5	63	A15
30	A4	64	A16
31	A3	65	/WE
32	A2	66	/OE
33	A1	67	NC
34	A0	68	NC

PUMA 68 pin JEDEC Surface Mounted PLCC



Ordering Information

PUMA 68F16006XI - 70

Speed	70 =	70ns
	90 =	90ns
	12 =	120ns
Temp. Range/Screening	Blank =	Commercial
	I =	Industrial
Pinout Configuration	X =	Industry Standard Pinout
Memory Organisation	16006 =	configurable as 512K x 32, 1M x 16 or 2M x 8
Technology	F =	FLASH
Package	PUMA 68 =	68 pin 'J' Leaded PLCC

Note :
Although this data is believed to be accurate the information contained herein is not intended to and does not create any warranty of merchantibility or fitness for a particular purpose.
Our products are subject to a constant process of development. Data may be changed without notice.
Products are not authorised for use as critical components in life support devices without the express written approval of a company director.

Visual Inspection Standard

All devices inspected to ANSI/J-STD-001B Class 2 standard

Moisture Sensitivity

Devices are **moisture sensitive.**

Shelf Life in Sealed Bag 12 months at <40^{O}C and <90% relative humidity (RH).

After this bag has been opened, devices that will be subjected to infrared reflow, vapour phase reflow, or equivalent processing (peak package body temp 220^{O}C) **must be** :

A : Mounted within 72 Hours at factory conditions of <30^{O}C/60% RH

OR

B : Stored at <20% RH

If these conditions are not met or indicator card is >20% when read at 23^{O}C +/-5% devices **require baking** as specified below.

If baking is required, devices may be baked for :-

A : 24 hours at 125^{O}C +/-5% for high temperature device containers

OR

B : 192 hours at 40^{O}C +5^{O}C/-0^{O}C and <5% RH for low temperature device containers**.**

Packaging Standard

Devices packaged in dry nitrogen, JED-STD-020.

Packaged in trays as standard.

Tape and reel available for shipment quantities exceeding 200pcs upon request.

Soldering Recomendations

IR/Convection -	Ramp Rate	6^{O}C/sec max.
	Temp. exceeding 183^{O}C	150 secs. max.
	Peak Temperature	225^{O}C
	Time within 5^{O}C of peak	20 secs max.
	Ramp down	6^{O}C/sec max.
Vapour Phase -	Ramp up rate	6^{O}C/sec max.
	Peak Temperature	215 - 219^{O}C
	Time within 5^{O}C of peak	60 secs max.
	Ramp down	6^{O}C/sec max.

The above conditions must not be exceeded.

Note : The above recommendations are based on standard industry practice. Failure to comply with the above recommendations invalidates product warranty.