Features

- **MultiMediaCard (MMC) Form Factor**
- **Single 2.7V to 3.6V Supply**
- **66 MHz Max Clock Frequency**
- **Serial Peripheral Interface (SPI) Compatible**
- **Low Power Dissipation**
  - **10 mA Active Read Current Typical**
  - **25 µA CMOS Standby Current Typical**
- **Industrial Temperature Range**
- **Pb-free/RoHS-compliant Package**

8-megabyte, 4-megabyte, and 2-megabyte 2.7-volt Only DataFlash® Cards

AT45DCB008D
AT45DCB004D
AT45DCB002D

1. Description

The AT45DCB008D, AT45DCB004D and AT45DCB002D are 2.7-volt only SPI compatible serial interface DataFlash® Cards. They are offered in 8-megabyte (64-Mbit), 4-megabyte (32-Mbit) and 2-megabyte (16-Mbit), densities. These 7-pin cards are form factor compatible to the MultiMediaCard standard leveraging on a wide range of low cost connectors that are commercially available. Additionally, the DataFlash Card is pinout compatible to the SPI version of the MMC card.

The small form factor and simple interface make the DataFlash Card ideal for a wide variety of data- and program code-storage applications where a removable storage medium is required. Applications range from voice/audio, text or image storage to software applications, system upgrades and software patches.

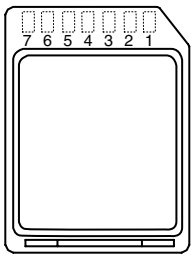
For detailed device specifications, please refer to the corresponding DataFlash datasheets:

- AT45DCB008D reference AT45DB642D
- AT45DCB004D reference AT45DB321D
- AT45DCB002D reference AT45DB161D

Table 1-1. Pin Configuration

Pin #	Pin Name	Function
1	$\overline{CS}$	Chip Select
2	SI	Serial Input
3	GND	Ground
4	VCC	Supply
5	SCK	Serial Clock
6	NC	No Connect
7	SO	Serial Output

Figure 1-1. DataFlash Card - Top View



3607E–DFLASH–01/08

2. Ordering Information

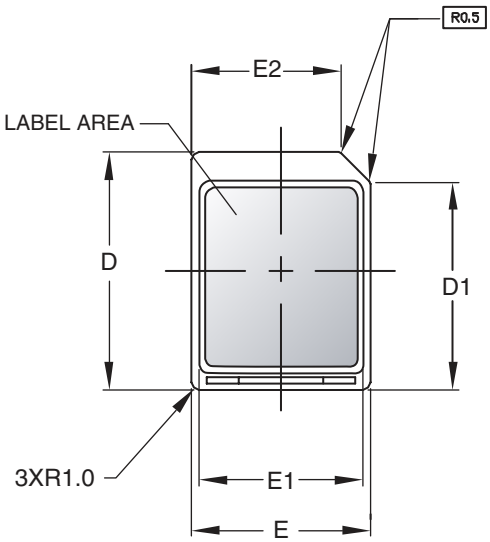
f_{SCK} (MHz)	I_{CC} (mA)		Ordering Code	Package	Operation Range
	Active	Standby			
66	15	0.05	AT45DCB008D AT45DCB004D AT45DCB002D	7DF1[1]	Industrial (-40° C to 85° C)

Note: 1. The 7DF1 is a Pb-free/RoHS-compliant package.

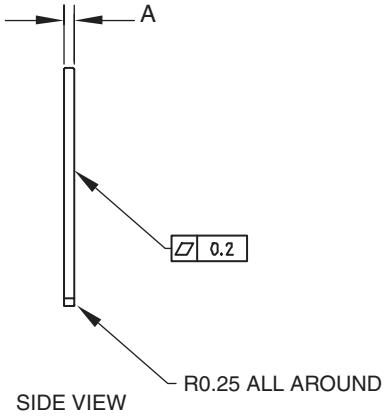
Package Type	
7DF1	7-lead, 2.5 mm Pitch 24 x 32 x 1.4 mm Body DataFlash Card

3. Packaging Information

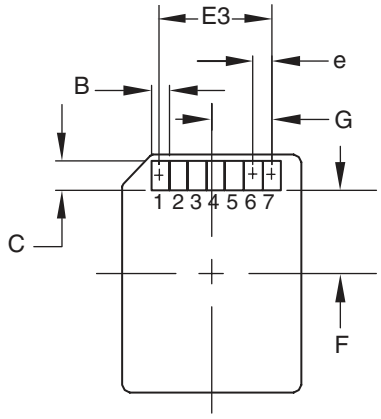
3.1 7DF1 – DataFlash Card



TOP VIEW



SIDE VIEW



BOTTOM VIEW

COMMON DIMENSIONS
(Unit of Measure = mm)

SYMBOL	MIN	NOM	MAX	NOTE
A	1.30	1.40	1.50	
B		2.40 TYP		
C		4.00 TYP		
D	31.90	32.00	32.10	
D1		28.00 REF		
E	23.90	24.00	24.10	
E1		22.00 REF		
E2		20.00 REF		
E3		15.00 TYP		
F		11.20 REF		
G		8.13 TYP		
e		2.50 TYP		

11/10/05

	TITLE	DRAWING NO.	REV.
2325 Orchard Parkway San Jose, CA 95131	**7DF1**, 7-pad, 2.5 mm Pitch 24 x 32 x 1.4 mm Body DataFlash Card	7DF1	B

4. Revision History

Revision Level Revision Date	History
A – November 2005	Initial release
B – March 2006	Added text to indicate that DataFlash cards are Pb-free
C – April 2006	Added text to indicate that DataFlash cards are RoHS compliant
D – July 2007	Added AT45DCB001D part number.
E – January 2008	Removed AT45DCB001D part number.

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