CryptoMemory and Secure Memory: Standard Product Offerings

The family of CryptoMemory® devices in the following tables are available as standard products. Options are listed for each device including, Smart Card Modules, Standard Packages and Wafers. Ordering codes indicate specific options to be used with the device number (e.g., AT88SC1616C-MJ denotes the 16K CryptoMemory in a "J" module). Options marked with an "m" are available, and those marked with a "1" are most commonly sold and therefore may have reduced leadtimes. Actual ship quantity in module form will vary +/- 20% depending upon die per wafer.

The following pages give details of the package options for the various ordering codes.

0.0.1   CryptoMemory

| Devices	Smart Card Modules (Commercial Temperature)		Standard Packages (Industrial Temperature)		7 mil Wafer (Industrial Temperature)
	-MJ	-MP	-SU	-PU	-WI
AT88SC0104C	1	m	1	m	m
AT88SC0204C	1	m	1	m	m
AT88SC0404C	1	m	1	m	m
AT88SC0808C	1	m	1	m	m
AT88SC1616C	1	m	1	m	m
AT88SC3216C	1		1	m	m
AT88SC6416C	1		1	m	m
AT88SC12816C	1		1	m	m
AT88SC25616C	1		1	m	m

0.0.2   Secure Memory

Devices	Smart Card Modules (Commercial Temperature)		Standard Packages (Industrial Temperature)		7 mil Wafer (Industrial Temperature)
	-09ET-00	-09PT-00	-10SU-00	-10PU-00	-10WI-00
AT88SC102	1	m			m
AT88SC1003	1	m			m
AT88SC153	1	m	1	m	m
AT88SC1608	1	m	1	m	m

Notes: 1. m = available

2. 1 = most commonly sold and may have reduced leadtimes

3. All devices operate at 2.7–5.5V except AT88SC1003, which operates at 4.5–5.5V.

4. All modules and packages are RoHS compliant.

2   Crypto SM Ordering Codes

CryptoMemory Ordering Codes
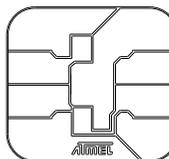## Smart Card Modules

Ordering Code: AT88SCxxxxC-MJ
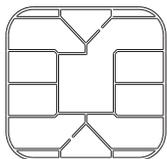
Module Size: M2
Dimension*: 12.6 x 11.4 [mm]
Glob Top: Round - 08.0 [mm]
Thickness: 0.58 [mm]
Pitch: 14.25 mm

Products:
AT88SC0104C
AT88SC0204C
AT88SC0404C
AT88SC0808C
AT88SC1616C
AT88SC3216C
AT88SC6416C
AT88SC12816C
AT88SC25616C

Ordering Code: AT88SCxxxxC-MP

Module Size: M2
Dimension*: 12.6 x 11.4 [mm]
Glob Top: Square – 8.8 x 8.8 [mm]
Thickness: 0.58 [mm]
Pitch: 14.25 mm

Products:
AT88SC0104C
AT88SC0204C
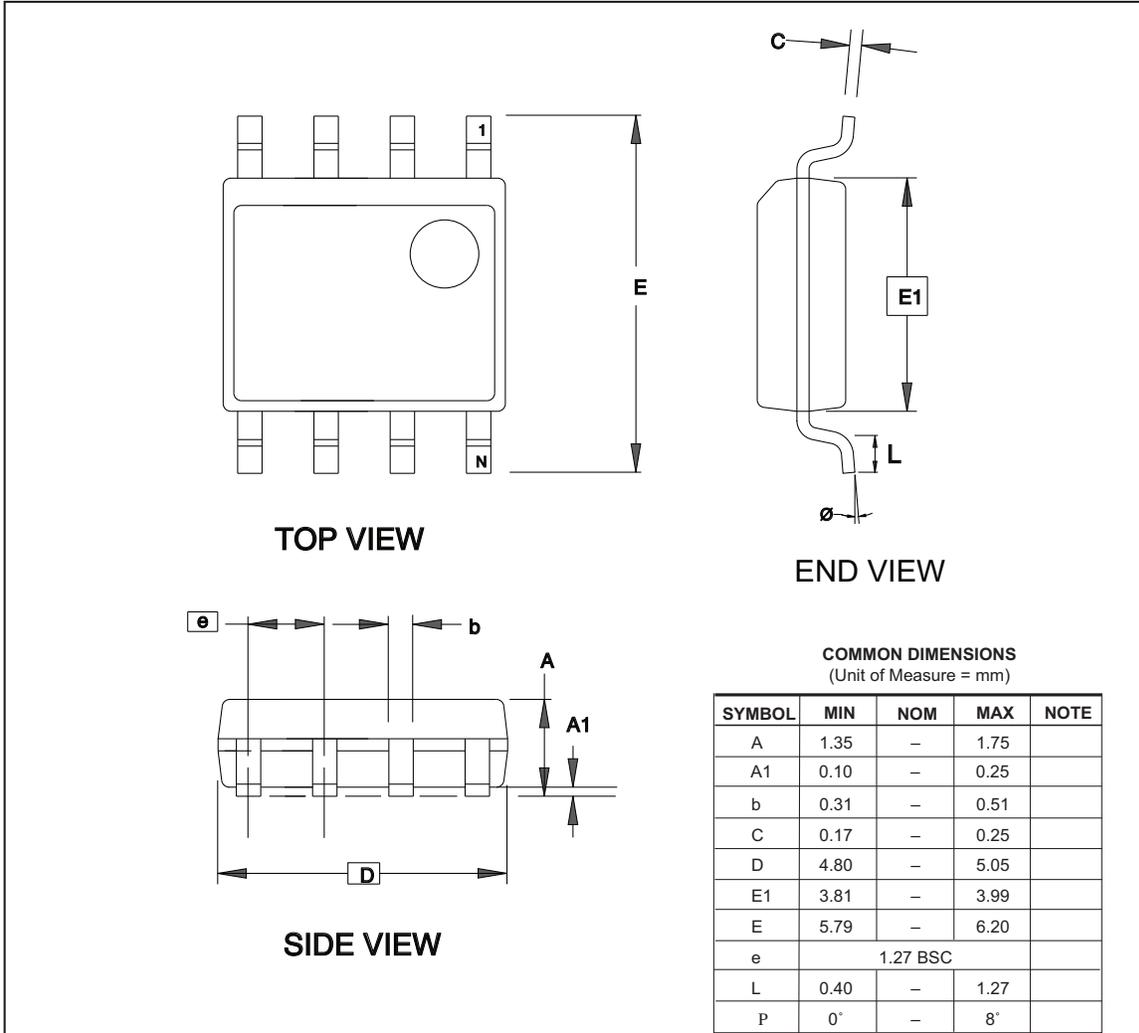AT88SC0404C
AT88SC0808C
AT88SC1616C

Note: *The module dimensions listed refer to the dimensions of the exposed metal contact area.
The actual dimensions of the module after excise or punching from the carrier tape are typically
0.4 mm greater in both directions (i.e., a punched M2 module will yield 13.0 x 11.8 mm)

CryptoMemory Ordering Codes

Standard Packages

Ordering Code: AT88SCxxxxC-SU
8S1, 8-lead, 0.150" Wide, Plastic Gull Wing Small
Outline (JEDEC SOIC)
Products: AT88SC0104C, AT88SC0204C, AT88SC0404C, AT88SC0808C,
AT88SC1616C, AT88SC3216C, AT88SC6416C, AT88SC12816C,
AT88SC25616C

TOP VIEW

END VIEW

SIDE VIEW

COMMON DIMENSIONS
(Unit of Measure = mm)

SYMBOL	MIN	NOM	MAX	NOTE
A	1.35	–	1.75	
A1	0.10	–	0.25	
b	0.31	–	0.51	
C	0.17	–	0.25	
D	4.80	–	5.05	
E1	3.81	–	3.99	
E	5.79	–	6.20	
e		1.27 BSC		
L	0.40	–	1.27	
P	0˚	–	8˚	

Note: These drawings are for general information only. Refer to JEDEC Drawing MS-012, Variation AA for proper dimensions, tolerances, datums, etc.

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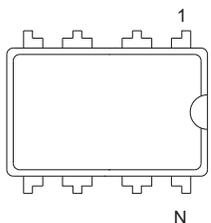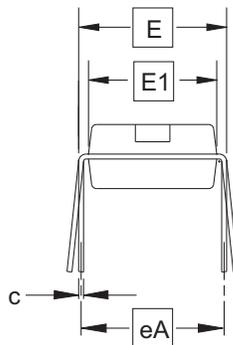|	TITLE	DRAWING NO.	REV.
1150 E. Cheyenne Mtn. Blvd. Colorado Springs, CO 80906	**8S1**, 8-lead (0.150" Wide Body), Plastic Gull Wing Small Outline (JEDEC SOIC)	8S1	C

CryptoMemory Ordering Codes

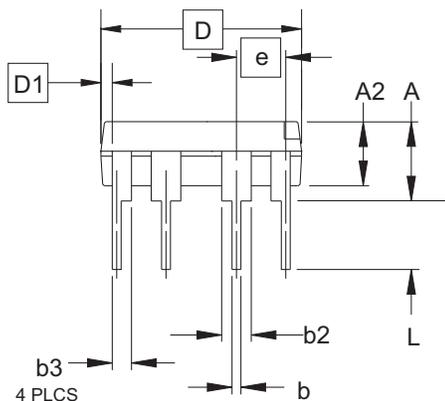## Standard Packages

Ordering Code: AT88SCxxxxC-PU
8P3, 8-lead, 0.300" Wide, Plastic Dual Inline Package (PDIP)
Products: AT88SC0104C, AT88SC0204C, AT88SC0404C, AT88SC0808C,
AT88SC1616C, AT88SC3216C, AT88SC6416C, AT88SC12816C,
AT88SC25616C

Top View

End View

Side View

COMMON DIMENSIONS
(Unit of Measure = inches)

SYMBOL	MIN	NOM	MAX	NOTE
A			0.210	2
A2	0.115	0.130	0.195	
b	0.014	0.018	0.022	5
b2	0.045	0.060	0.070	6
b3	0.030	0.039	0.045	6
c	0.008	0.010	0.014	
D	0.355	0.365	0.400	3
D1	0.005			3
E	0.300	0.310	0.325	4
E1	0.240	0.250	0.280	3
e	0.100 BSC			
eA	0.300 BSC			4
L	0.115	0.130	0.150	2

Notes: 1. This drawing is for general information only; refer to JEDEC Drawing MS-001, Variation BA for additional information.
2. Dimensions A and L are measured with the package seated in JEDEC seating plane Gauge GS-3.
3. D, D1 and E1 dimensions do not include mold Flash or protrusions. Mold Flash or protrusions shall not exceed 0.010 inch.
4. E and eA measured with the leads constrained to be perpendicular to datum.
5. Pointed or rounded lead tips are preferred to ease insertion.
6. b2 and b3 maximum dimensions do not include Dambar protrusions. Dambar protrusions shall not exceed 0.010 (0.25 mm).

01/09/02

	TITLE	DRAWING NO.	REV.
AIMEL 2325 Orchard Parkway San Jose, CA 95131	**8P3**, 8-lead, 0.300" Wide Body, Plastic Dual In-line Package (PDIP)	8P3	B

Note: Dimensions in inches and (millimeters).

Secure Memory Ordering Codes
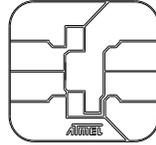## Smart Card Modules

Ordering Code: AT88SCxxx-09ET-00

Module Size: M2
Dimension*: 12.6 x 11.4 [mm]
Glob Top: Round – ? 8.0 [mm]
Thickness: 0.58 [mm]
Pitch: 14.25 mm

Products:
AT88SC102
AT88SC1003
AT88SC153
AT88SC1608

Ordering Code: AT88SCxxx-09PT-00

Module Size: M2
Dimension*: 12.6 x 11.4 [mm]
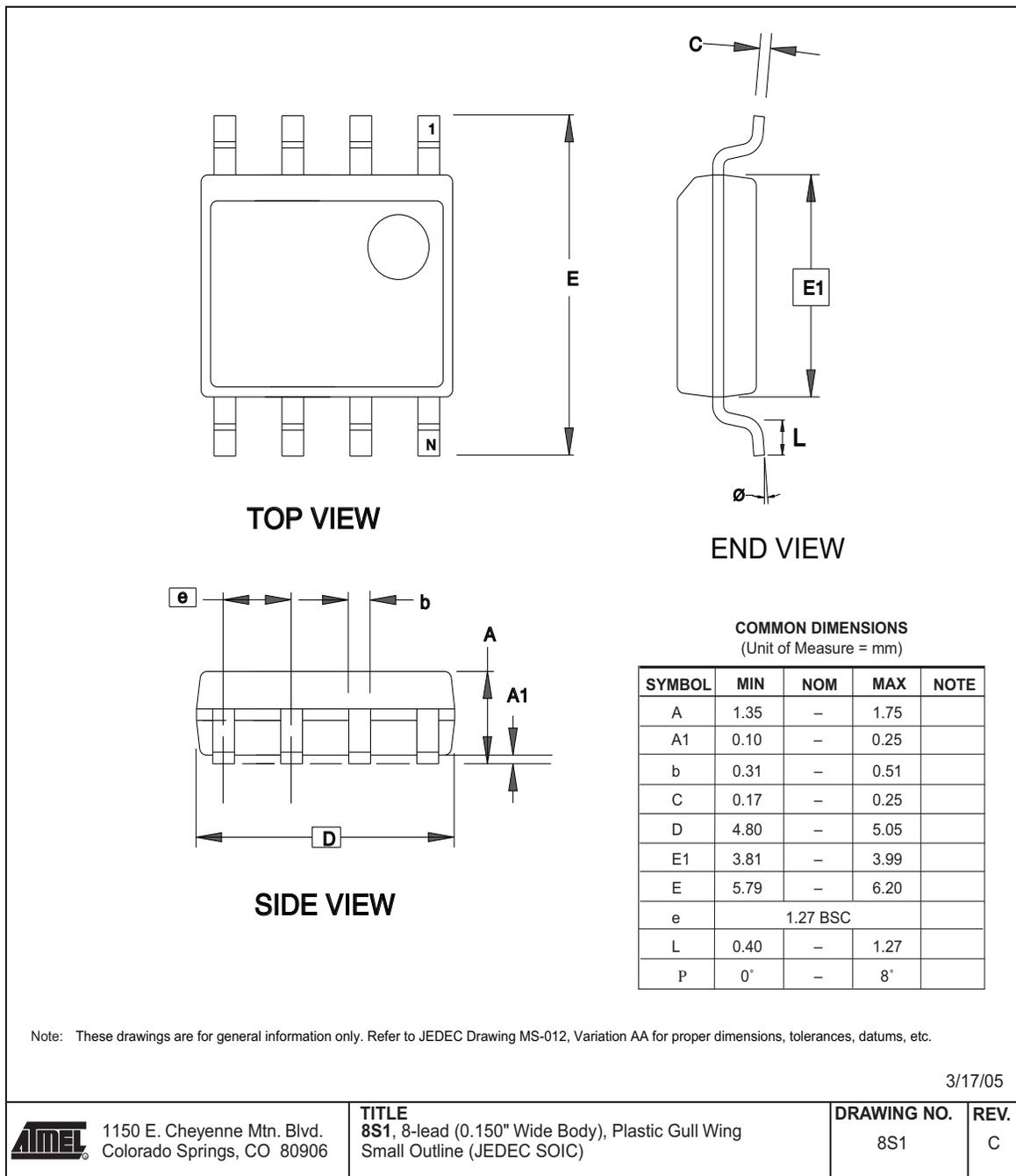Glob Top: Square – 8.8 x 8.8 [mm]
Thickness: 0.58 [mm]
Pitch: 14.25 mm

Products:
AT88SC102
AT88SC1003
AT88SC153
AT88SC1608

Note: *The module dimensions listed refer to the dimensions of the exposed metal contact area.
       The actual dimensions of the module after excise or punching from the carrier tape are typically 0.4 mm greater in both directions
       (i.e., a punched M2 module will yield 13.0 x 11.8 mm)

Secure Memory Ordering Codes
Standard Packages

Ordering Code: AT88SCxxx-10SU-00
8S1, 8-lead, 0.150" Wide, Plastic Gull Wing Small
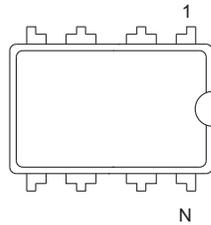Outline (JEDEC SOIC)
Products: AT88SC153, AT88SC1608

TOP VIEW

END VIEW

SIDE VIEW

COMMON DIMENSIONS
(Unit of Measure = mm)

SYMBOL	MIN	NOM	MAX	NOTE
A	1.35	–	1.75	
A1	0.10	–	0.25	
b	0.31	–	0.51	
C	0.17	–	0.25	
D	4.80	–	5.05	
E1	3.81	–	3.99	
E	5.79	–	6.20	
e		1.27 BSC		
L	0.40	–	1.27	
P	0°	–	8°	

Note: These drawings are for general information only. Refer to JEDEC Drawing MS-012, Variation AA for proper dimensions, tolerances, datums, etc.

3/17/05

	TITLE	DRAWING NO.	REV.
ATMEL 1150 E. Cheyenne Mtn. Blvd. Colorado Springs, CO 80906	**8S1**, 8-lead (0.150" Wide Body), Plastic Gull Wing Small Outline (JEDEC SOIC)	8S1	C

Secure Memory Ordering Codes
Standard Packages

Ordering Code: AT88SCxxx-10PU-00
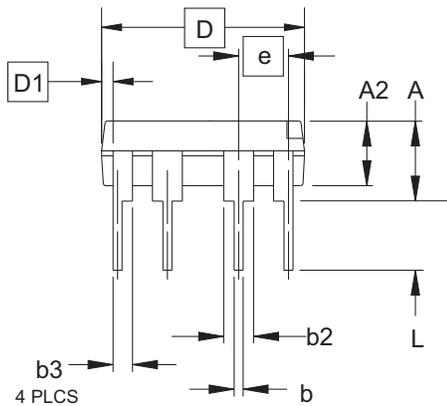**8P3**, 8-lead, 0.300" Wide, Plastic Dual Inline Package (PDIP)
Products: AT88SC153, AT88SC1608

Top View

End View

Side View

COMMON DIMENSIONS
(Unit of Measure = inches)

SYMBOL	MIN	NOM	MAX	NOTE
A			0.210	2
A2	0.115	0.130	0.195	
b	0.014	0.018	0.022	5
b2	0.045	0.060	0.070	6
b3	0.030	0.039	0.045	6
c	0.008	0.010	0.014	
D	0.355	0.365	0.400	3
D1	0.005			3
E	0.300	0.310	0.325	4
E1	0.240	0.250	0.280	3
e	0.100 BSC			
eA	0.300 BSC			4
L	0.115	0.130	0.150	2

Notes: 1. This drawing is for general information only; refer to JEDEC Drawing MS-001, Variation BA for additional information.
2. Dimensions A and L are measured with the package seated in JEDEC seating plane Gauge GS-3.
3. D, D1 and E1 dimensions do not include mold Flash or protrusions. Mold Flash or protrusions shall not exceed 0.010 inch.
4. E and eA measured with the leads constrained to be perpendicular to datum.
5. Pointed or rounded lead tips are preferred to ease insertion.
6. b2 and b3 maximum dimensions do not include Dambar protrusions. Dambar protrusions shall not exceed 0.010 (0.25 mm).

01/09/02

	TITLE	DRAWING NO.	REV.
2325 Orchard Parkway San Jose, CA 95131	**8P3**, 8-lead, 0.300" Wide Body, Plastic Dual In-line Package (PDIP)	8P3	B

Note: Dimensions in inches and (millimeters).

Crypto SM Ordering Codes

1. Revision History

Date	Doc. Rev.	Comments
6/2008	5044F	Updated to new template
7/2006	5044E	Revision history implemented. Added new Smart Card module and plastic package offerings, including RoHS packages.

![ATMEL logo]

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