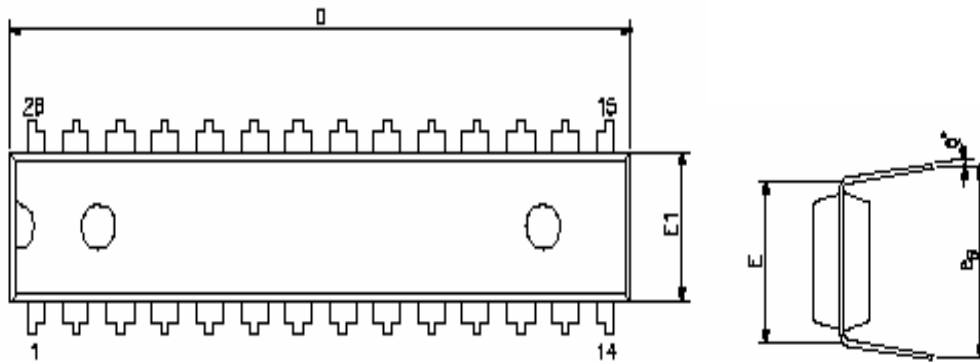


Package 目錄

28 PIN DIP 300mil	P2
28 PIN DIP 600mil	P3
20 PIN DIP 300mil	P4
18 PIN DIP 300mil	P5
14 PIN DIP 300mil	P6
28、24、20 PIN SOP 300mil	P7
18 PIN SOP 300mil	P8
14 PIN SOP 209mil	P9
28 PIN SSOP 209mil	P10
24 PIN SSOP 209mil	P11
20 PIN SSOP 209mil	P12

28 PIN DIP 300mil(Device Package)

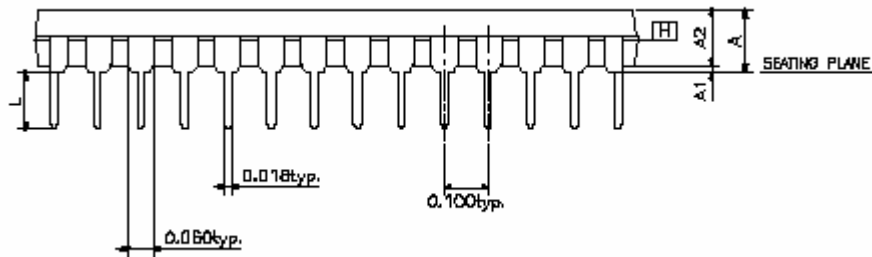


SYMBOLS	MIN.	NOR.	MAX.
A	—	—	0.210
A1	0.015	—	—
A2	0.125	0.130	0.135
D	1.385	1.390	1.400
E	0.310 BSC		
E1	0.283	0.288	0.293
L	0.115	0.130	0.150
e_B	0.330	0.350	0.370
θ°	D	7	15

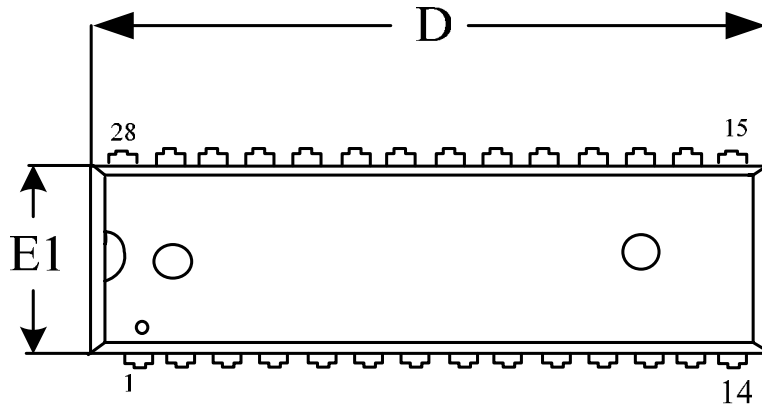
UNIT : INCH

NOTE:

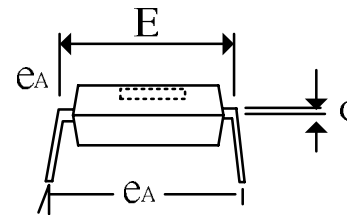
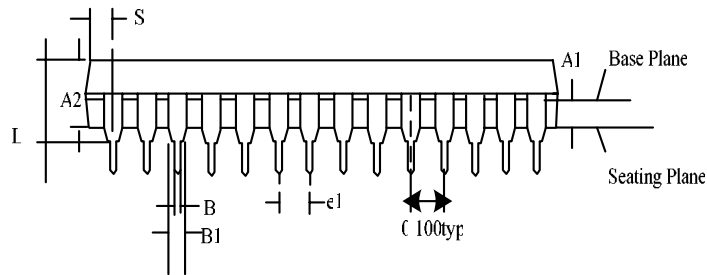
1. JEDEC OUTLINE : MS-015 AH



28 PIN DIP 600mil(Device Package)



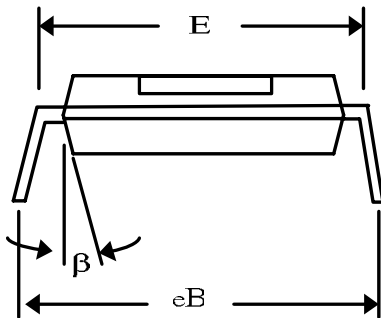
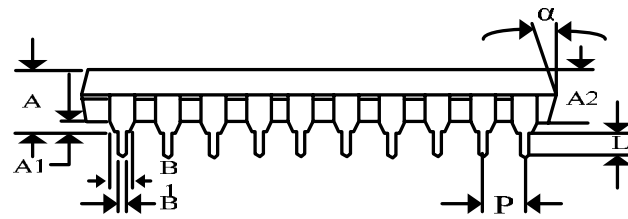
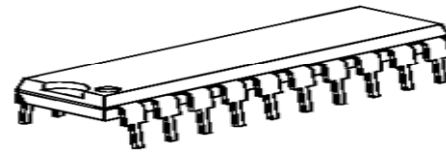
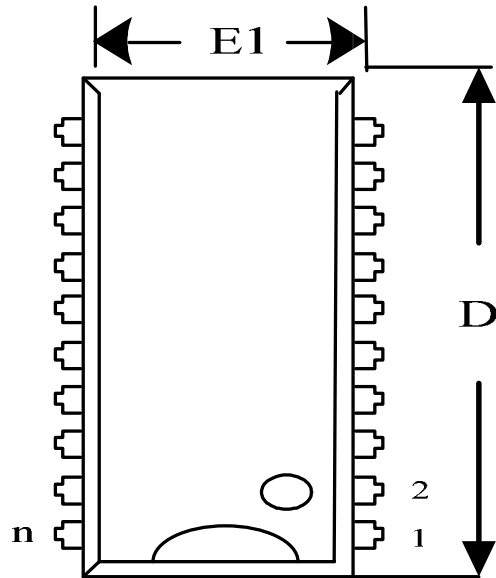
Symbol	Dimension in mm			Dimension in mm		
	Min	Nom	Max	Min	Nom	Max
A	—	—	0.210	—	—	5.33
A ₁	0.010	—	—	0.25	—	—
A ₂	0.150	0.155	0.160	3.81	3.94	4.06
B	0.016	0.018	0.022	0.41	0.46	0.56
B ₁	0.058	0.060	0.064	1.47	1.52	1.63
C	0.008	0.010	0.014	0.20	0.25	0.36
D	—	1.460	1.470	—	37.08	37.34
E	0.590	0.600	0.610	14.49	15.24	15.49
E ₁	0.540	0.545	0.552	13.72	13.84	14.02
e ₁	0.090	0.100	0.110	2.29	2.54	2.79
L ₁	0.120	0.130	0.140	3.05	3.30	3.56
a	0°	—	15	0	—	15
e _A	0.630	0.650	0.670	16.00	16.51	17.02
S	—	—	0.090	—	—	2.29



Note

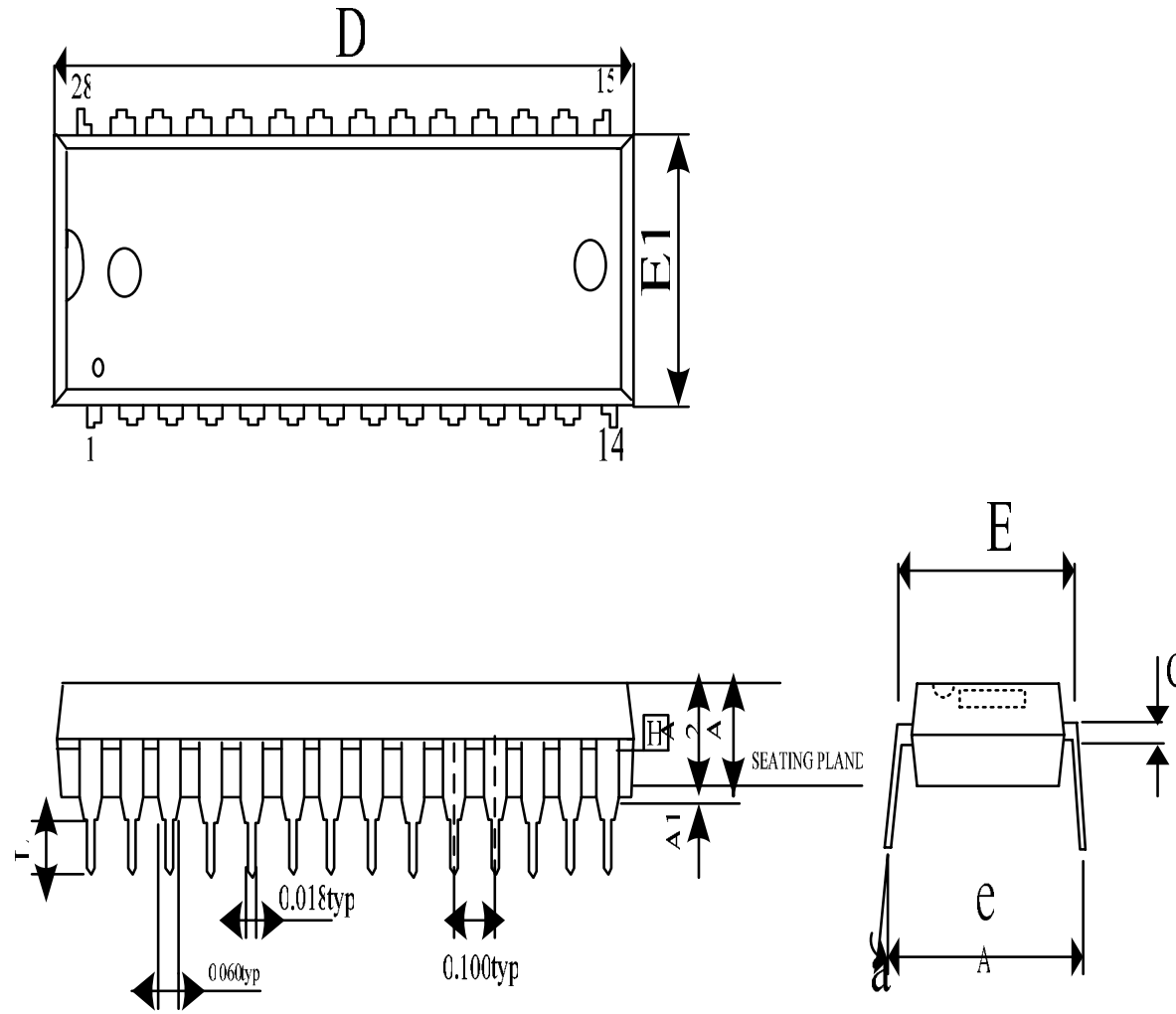
1. Dimension D Max & S include mold flash or tie bar burrs
2. Dimension E does not include interlead flash.
3. Dimension D & E include mold mismatch and are determined at the mold parting line
4. Dimension B1 does not include dambar protrusion / intrusion
5. Controlling dimension: Inch
6. General appearance spec should be based on final visual inspection spec.

20 PIN DIP 300mil(Device Package)



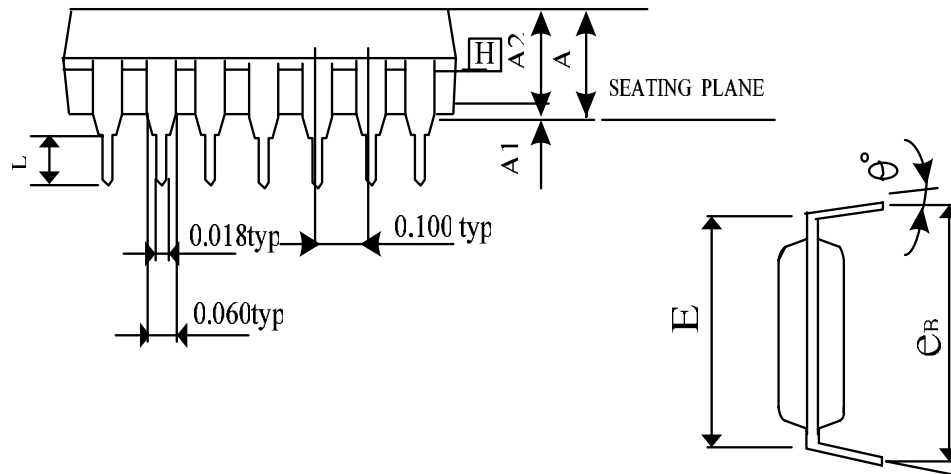
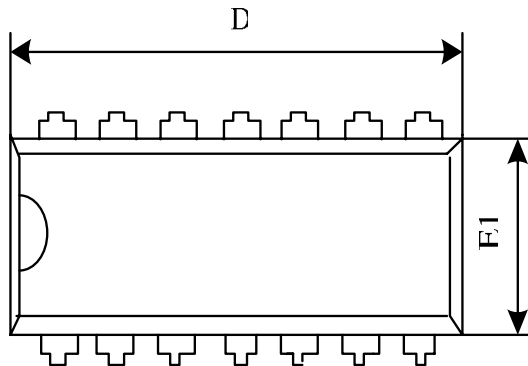
SYMBOL	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
n			20		20	
P		.100			2.54	
A	.140	.155	.170	3.56	3.94	4.32
A2	.115	.130	.145	2.92	3.30	3.68
A1	.015			0.38		
E	.295	.310	.325	7.49	7.87	8.26
E1	.240	.250	.260	6.10	6.35	6.60
D	1.025	1.033	1.040	26.04	26.24	26.42
L	.120	.130	.140	3.05	3.30	3.56
C	.008	.012	.015	0.20	0.29	0.38
B1	.055	.060	.065	1.40	1.52	1.65
B	.014	.018	.022	0.36	0.46	0.56
eB	.310	0.370	.430	7.87	9.40	10.92
alpha	5	10	15	5	10	15
Beta	5	10	15	5	10	15

18 PIN DIP 300mil (Device Package)



Symbol	Dimension in mm		
	Min.	Nom.	Max.
A	—	—	5.33
A1	0.25	—	—
A2	3.18	3.30	3.43
B	0.41	0.46	0.56
B1	1.47	1.52	1.63
C	0.20	0.25	0.36
D	—	35.26	35.56
E	7.62	7.87	8.13
E1	7.19	7.32	7.44
e1	2.29	2.54	2.79
L1	3.05	3.30	3.56
a	0	—	15
eA	8.38	8.89	9.40
S	—	—	1.40

14 PIN DIP 300mil(Device Package)



SYMBOLS	MIN	NOR	MAX
A	—	—	0.210
A1	0.015	—	—
A2	0.125	0.130	0.135
D	0.735	0.750	0.775
E	0.300 BSC		
E1	0.245	0.250	0.255
L	0.115	0.130	0.150
eE	0.335	0.355	0.375
θ°	0	7	15

UNIT : INCH

NOTES:

1. JEDEC OUTLINE: MS-001 AA

2. "D", "E1" DIMENSIONS DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS. MOLD FLASH OR PROTRUSIONS SHALL NOT EXCEED .010 INCH.

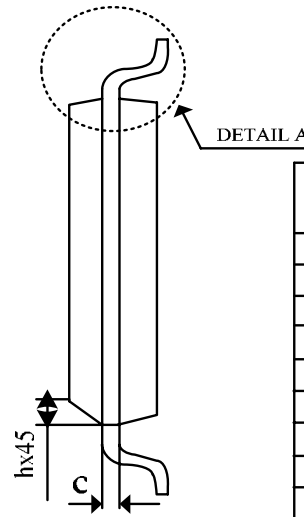
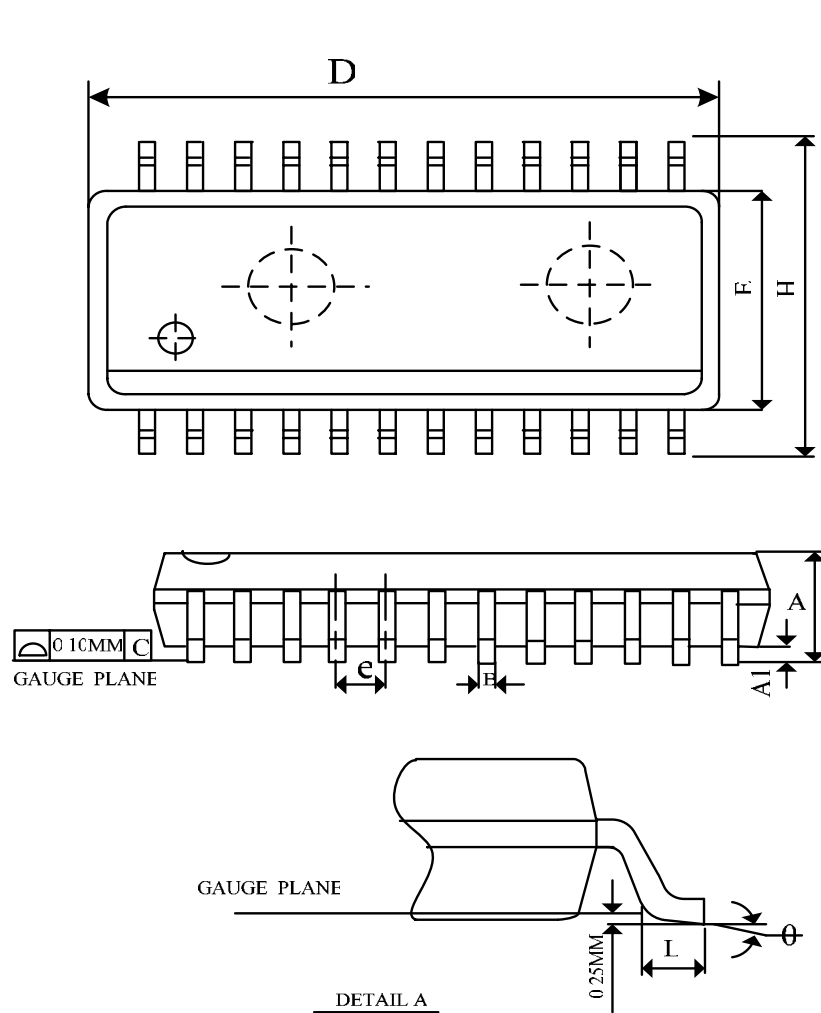
3. eE IS MEASURED AT THE LEAD TIPS WITH THE LEADS UNCONSTRAINED.

4. POINTED OR ROUNDED LEAD TIPS ARE PREFERRED TO EASE INSERTION.

5. DISTANCE BETWEEN LEADS INCLUDING DAM BAR PROTRUSIONS TO BE .005 INCH MINIMUM.

6. DATUM PLANE H COINCIDENT WITH THE BOTTOM OF LEAD, WHERE LEAD EXITS BODY.

28、 24、 20 PIN SOP 300mil (Device Package)

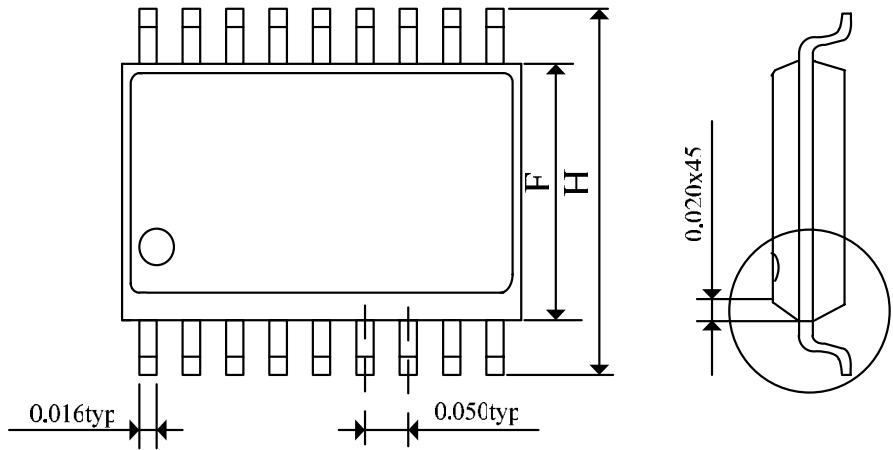


Symbol	DIMENSION IN MM		DIMENSION IN INCH	
	MIN	MAX	MIN	MAX
A	2.35	2.65	0.0926	0.1043
A1	0.10	0.30	0.0040	0.0118
B	0.33	0.51	0.013	0.020
C	0.23	0.32	0.0091	0.0125
θ	17.70	18.10	0.6969	0.7125
e	1.27 BSC		0.050 BSC	
E	7.40	7.60	0.2914	0.2992
H	10.00	10.65	0.394	0.419
L	0.40	1.27	0.016	0.050
h	0.25	0.75	0.010	0.029
θ	0°	8°	0°	8°

N	D DIMENSION (IN MM)		D DIMENSION (IN INCH)		JEDEC
	MIN	MAX	MIN	MAX	
20	12.60	13.00	0.4961	0.5118	MS-013(AC)
24	15.20	15.60	0.5985	0.6141	MS-013(AD)
28	17.70	18.10	0.6969	0.7125	MS-013(AE)

*Note: DIMENSION 'D' DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED 0.15 MM (0.006 INCH) PER SIDE.

18 PIN SOP 300 mil (Device Package)

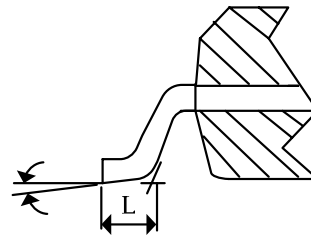
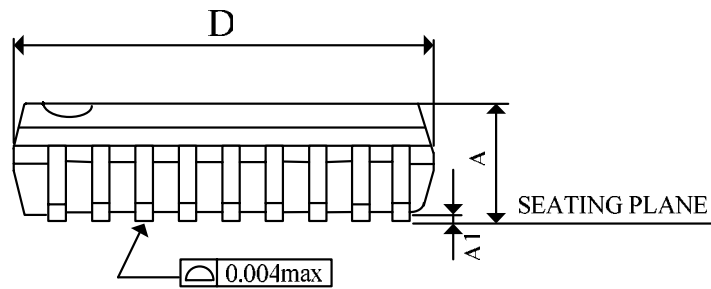


Symbol	MIN	MAX
A	0.093	0.104
A1	0.004	0.012
D	0.447	0.463
E	0.291	0.299
H	0.394	0.419
L	0.016	0.050
θ°	0	8

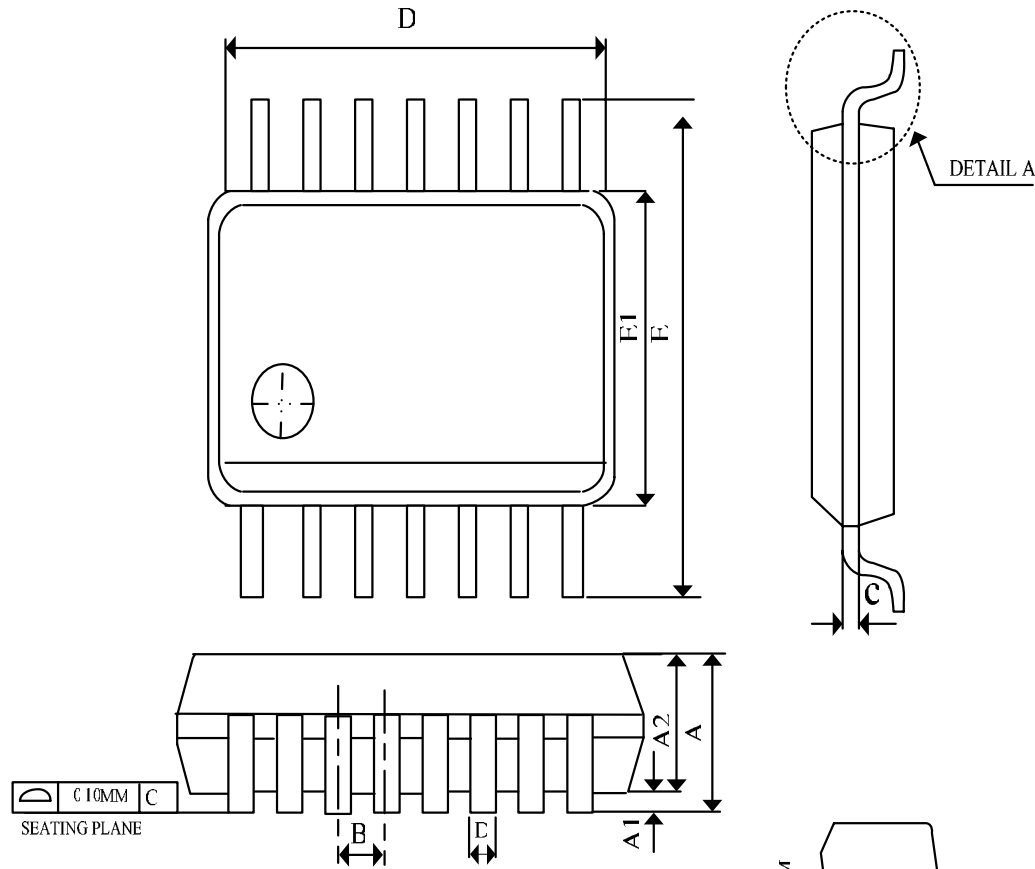
UNIT INCH

Note:

1. JEDEC OUTLINE: MS-013 AB
2. DIMENSIONS "D" DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED .15mm(.006in) PER SIDE.
3. DIMENSIONS "E" DOES NOT INCLUDE INTER-LEAD FLASH, OR PROTRUSIONS. INTER-LEAD FLASH AND PROTRUSIONS SHALL NOT EXCEED .25mm(.010in) PER SIDE.



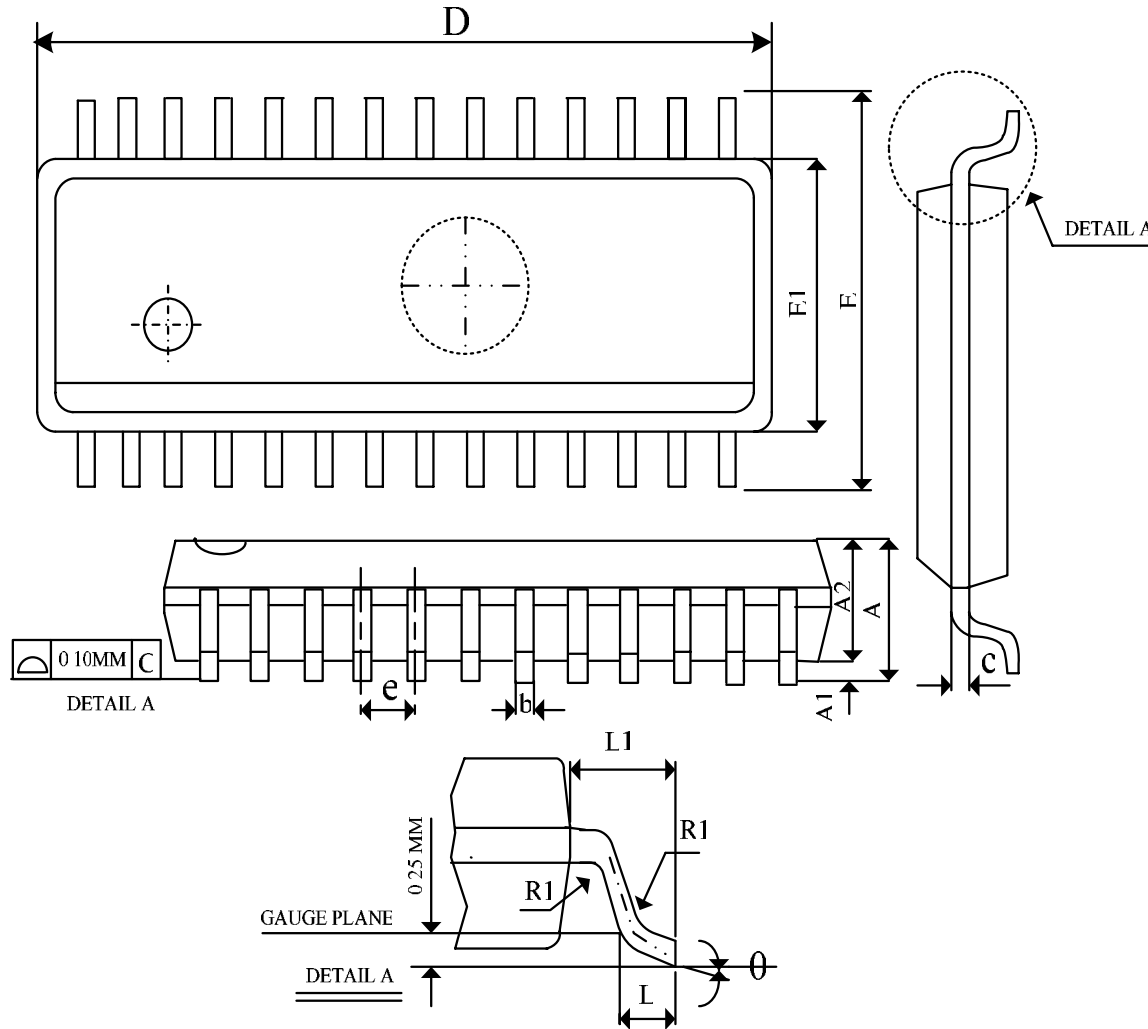
14 PIN SOP 209 mil(Device Package)



*Note DIMENSION 'C' DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS
MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED 0.15 MM (0.006 INCH) PER SIDE

SYMBOL	DIMENSION IN MM			DIMENSION IN INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A			2.0			0.079
A1	0.05			0.002		
A2	1.65	1.75	1.85	0.065	0.069	0.073
b	0.22	0.30	0.33	0.009	0.012	0.013
C	0.09	0.15	0.21	0.004	0.006	0.008
D	9.90	10.20	10.50	0.390	0.402	0.413
e	0.65 BASIC			0.026 BASIC		
E	7.40	7.80	8.20	0.291	0.307	0.323
E1	5.00	5.30	5.60	0.197	0.209	0.220
L	0.55	0.75	0.95	0.022	0.030	0.038
L1	1.25 REF.			0.049 REF.		
R1	0.09			0.004		
∅	D	4	8	0	4	8
JEDEC	MO-150 (AE)					

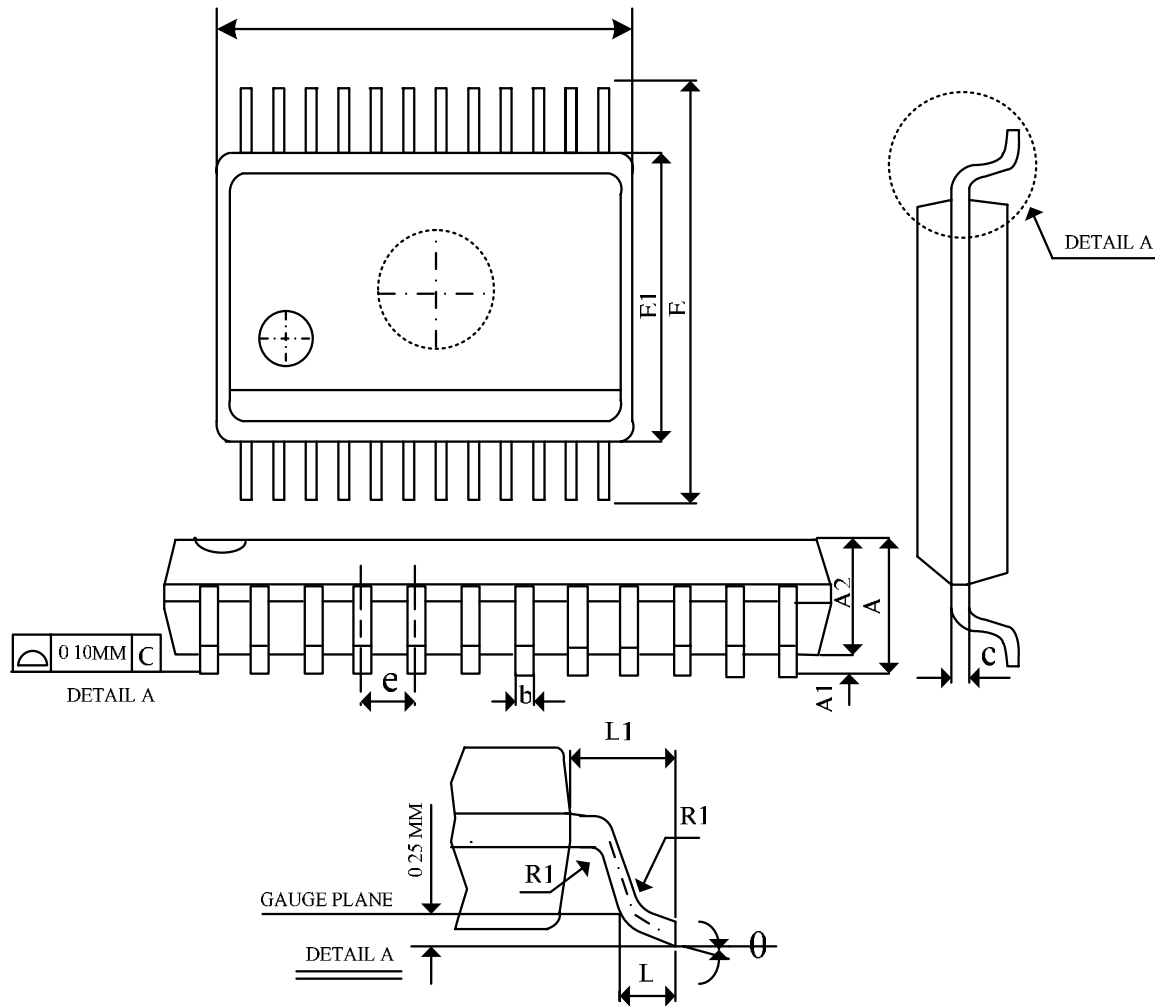
28 PIN SSOP 209 mil(Device Package)



SYMBOL	DIMENSION IN MM			DIMENSION IN INCH		
	MIN	NOM	MAX	MIN	NOM	
A			2.0			0.079
A1	0.05			0.002		
A2	1.65	1.75	1.85	0.065	0.069	0.073
b	0.22	0.30	0.33	0.009	0.012	0.013
C	0.09	0.15	0.21	0.004	0.006	0.008
D	9.90	10.20	10.50	0.390	0.402	0.413
e	0.65 BASIC			0.026 BASIC		
E	7.40	7.80	8.20	0.291	0.307	0.323
E1	5.00	5.30	5.60	0.197	0.209	0.220
L	0.55	0.75	0.95	0.022	0.030	0.038
L1	1.25 REF.			0.049 REF.		
R1	0.09			0.004		
Φ	D	4	8	0	4	8
JEDEC	MO-15C (AE)					

*Note DIMENSION 'D' DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS, BUT DO INCLUDE MOLD MISMATCH MOLD FLASH, OR PROTRUSIONS SHALL NOT EXCEED 0.20 MM PER SIDE

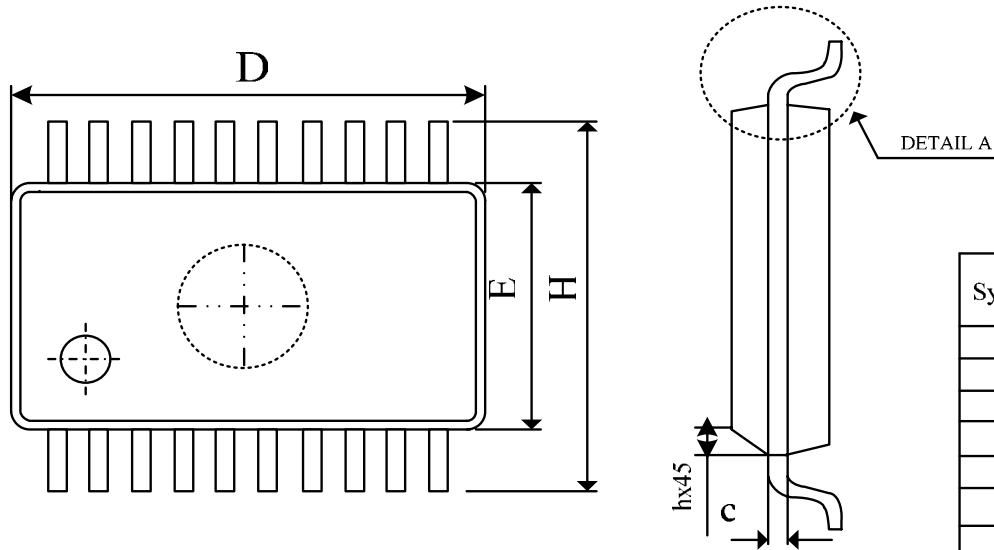
24 PIN SSOP 209 mil(Device Package)



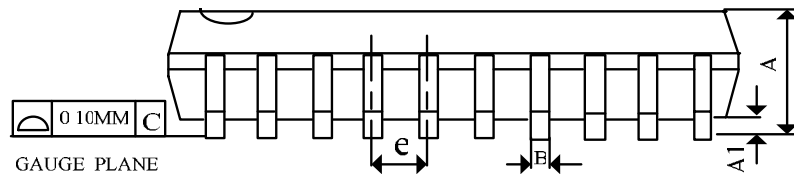
SYMBOL	DIMENSION IN MM			DIMENSION IN INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A			2.0			0.079
A1	0.05			0.002		
A2	1.65	1.75	1.85	0.065	0.069	0.073
b	0.22	0.30	0.33	0.009	0.012	0.013
C	0.09	0.15	0.21	0.004	0.006	0.008
D	9.90	10.20	10.50	0.390	0.402	0.413
e	0.65 BASIC			0.026 BASIC		
E	7.40	7.80	8.20	0.291	0.307	0.323
E1	5.00	5.30	5.60	0.197	0.209	0.220
L	0.55	0.75	0.95	0.022	0.030	0.038
L1	1.25 REF.			0.049 REF.		
R1	0.09			0.004		
Ø	D	4	8	0	4	8
JEDEC	MO-150 (AE)					

*Note DIMENSION 'D' DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS, BUT DO INCLUDE MOLD MISMATCH MOLD FLASH, OR PROTRUSIONS SHALL NOT EXCEED 0.20 MM PER SIDE

20 PIN SSOP 209 mil(Device Package)



Symbol	DIMENSION IN MM		DIMENSION IN INCH	
	MIN	MAX	MIN	MAX
A	2.35	2.65	0.0926	0.1043
A1	0.10	0.30	0.0040	0.0118
B	0.33	0.51	0.013	0.020
C	0.23	0.32	0.0091	0.0125
D	12.60	13.00	0.4961	0.5118
e	1.27 BSC		0.050 BSC	
E	7.40	7.60	0.2914	0.2992
H	10.00	10.65	0.394	0.419
L	0.40	1.27	0.016	0.050
h	0.25	0.75	0.010	0.029
θ	0°	8°	0°	8°



*Note: DIMENSION 'D' DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED 0.15 MM (0.006 INCH) PER SIDE.

