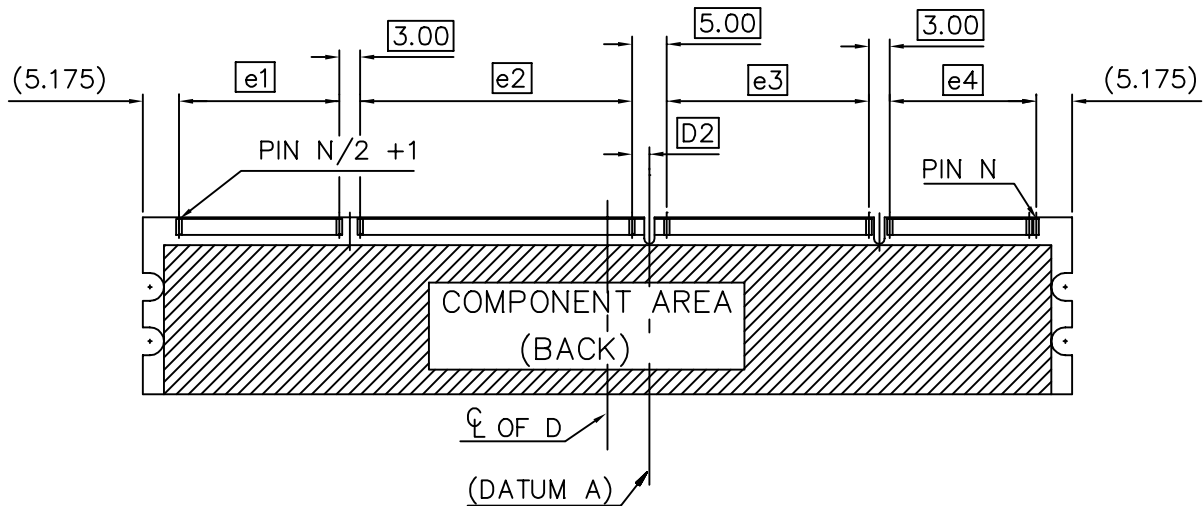
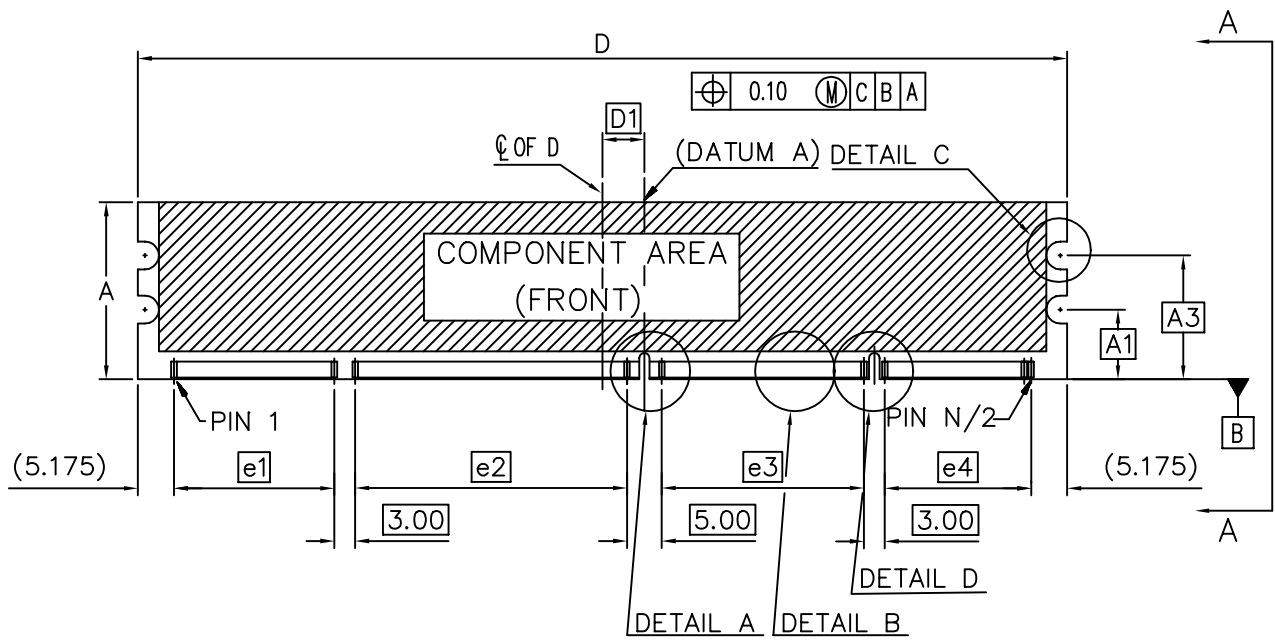


CENTER KEY CONFIGURATION
(VARIATION BX)

PATENT CLAIM :

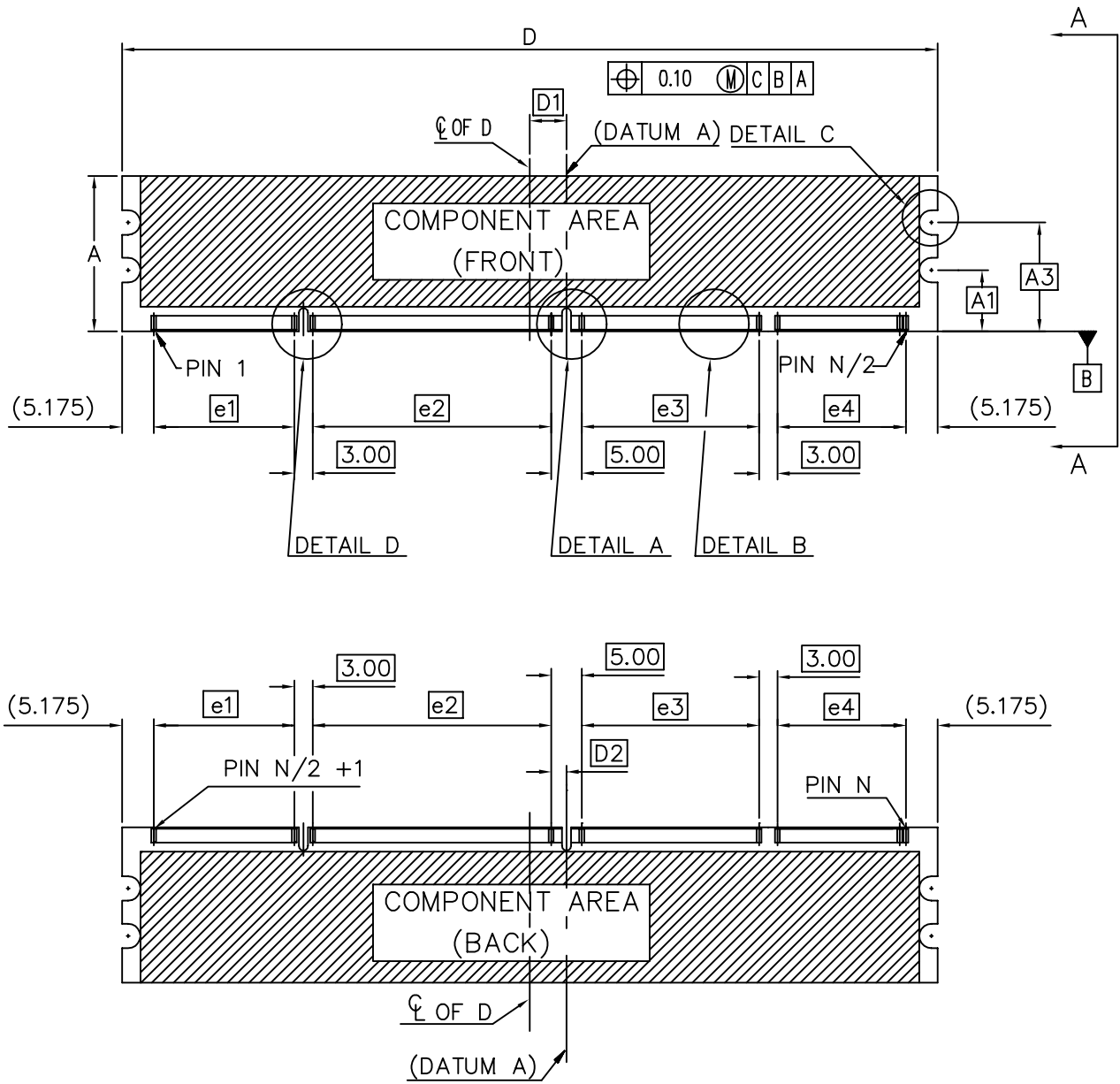
IT HAS BEEN STATED THAT U.S. PATENT NO. 5,227,664 (HELD BY HITACHI)
MAY RELATE TO CERTAIN IMPLEMENTATIONS OF THIS PACKAGE OUTLINE.

JEDEC SOLID STATE PRODUCT OUTLINE	THIS REGISTERED OUTLINE HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR.				
TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	DESIGNATOR	ISSUE	DATE		SHEET
		A	11/00	MO-227	1 OF 9



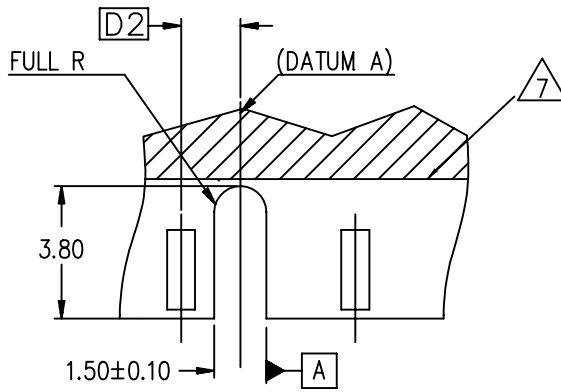
RIGHT KEY CONFIGURATION
(VARIATION CX)

JEDEC SOLID STATE PRODUCT OUTLINE	TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	ISSUE A	DATE 11/00	MO-227	SHEET 2 OF 9
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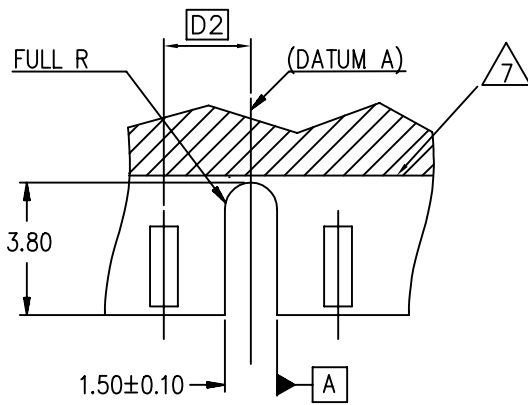
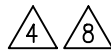


LEFT KEY CONFIGURATION
(VARIATION FX)

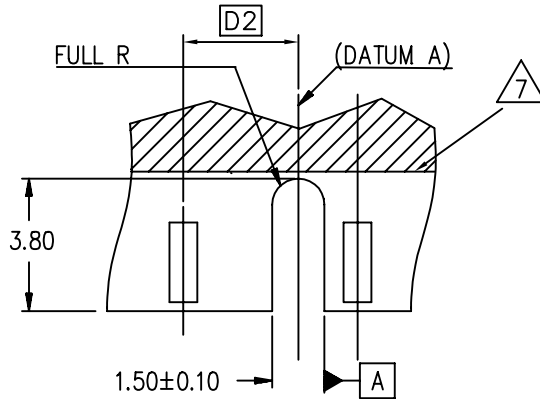
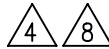
JEDEC SOLID STATE PRODUCT OUTLINE	TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	ISSUE A	DATE 11/00	MO-227	SHEET 3 OF 9
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LEFT OFFSET KEYWAY
REFER TO VARIATIONS
(xA)



CENTER KEYWAY
REFER TO VARIATIONS
(xB)

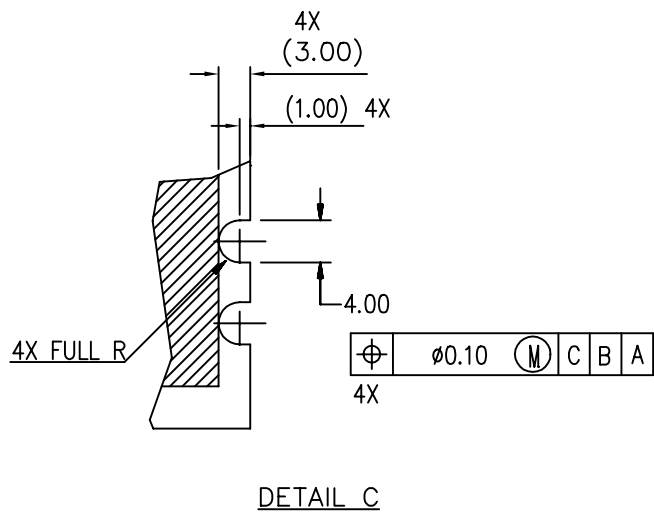
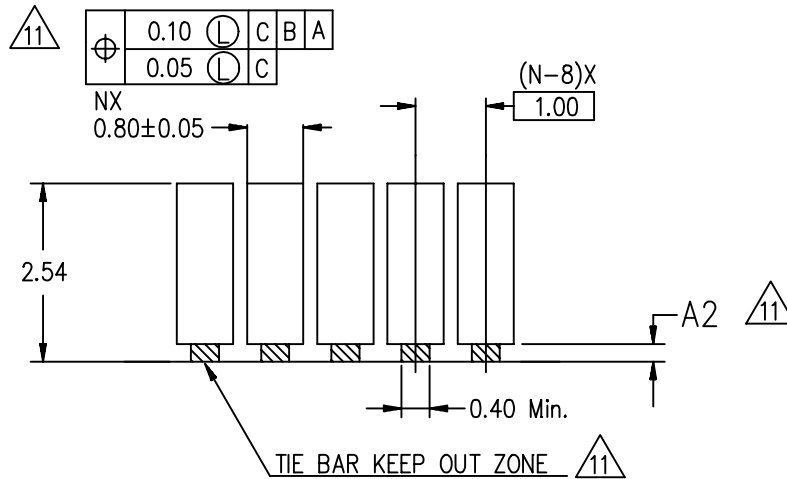
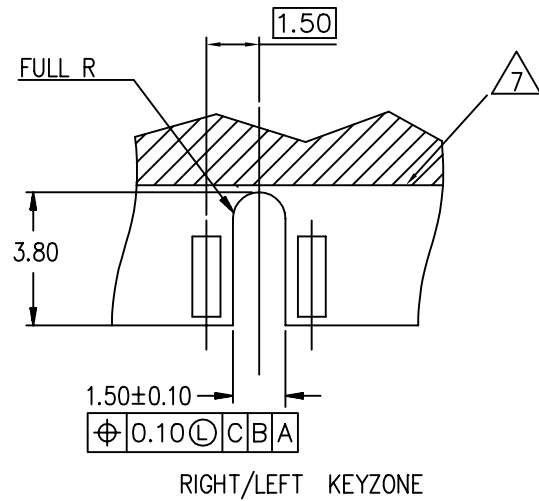
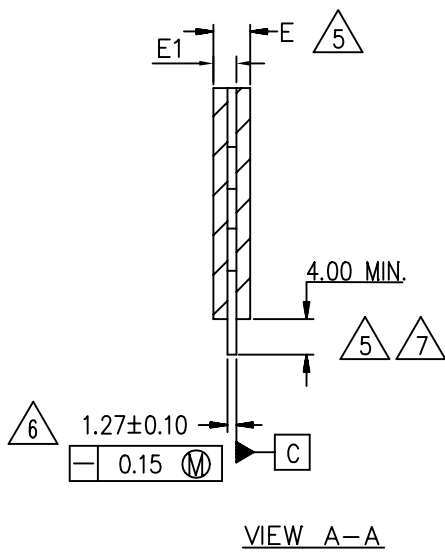


RIGHT OFFSET KEYWAY
REFER TO VARIATIONS
(xC)



DETAIL A: CENTER KEY ZONE

JEDEC SOLID STATE PRODUCT OUTLINE	TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	ISSUE A	DATE 11/00	MO-227	SHEET 4 OF 9
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<p>JEDEC SOLID STATE PRODUCT OUTLINE</p>	<p>TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.</p>	<p>ISSUE A</p>	<p>DATE 11/00</p>	<p>MO-227</p>	<p>SHEET 5 OF 9</p>
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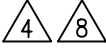
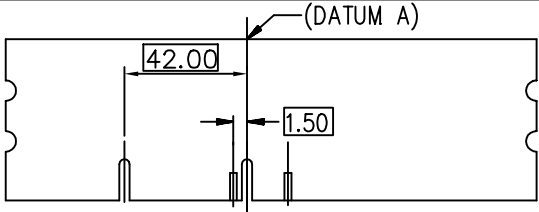
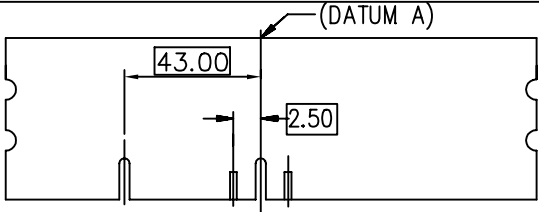
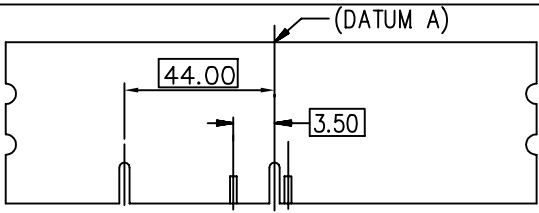
MECHANICAL KEYING
(FRONT VIEWS)

VARIATION	CENTER KEY ZONE	
B1	2.5V	
B2	1.8V	
B3	X.XV	




VARIATION	CENTER KEY ZONE	RIGHT KEY ZONE	
C1	2.5V	RESERVED	
C2	1.8V	RESERVED	
C3	X.XV	RESERVED	

JEDEC SOLID STATE PRODUCT OUTLINE	TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	ISSUE A	DATE 11/00	MO-227	SHEET 6 OF 9
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MECHANICAL KEYING
(FRONT VIEWS)

VARIATION	CENTER KEY ZONE	LEFT KEY ZONE	
F1	2.5V	RESERVED	
F2	1.8V	RESERVED	
F3	X.XV	RESERVED	

SDRAM VARIATIONS

SYMBOL	AA-XX 			AB-XX 			AC-XX 			NOTE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
A	24.85	25.00	25.15	24.85	25.00	25.15	24.85	25.00	25.15	
A1	10.00 BSC			10.00 BSC			10.00 BSC			
A2	0.05	0.20	0.35	0.05	0.20	0.35	0.05	0.20	0.35	
A3	17.78 BSC			17.78 BSC			17.78 BSC			
A4	20.78	—	—	20.78	—	—	20.78	—	—	
D	133.20	133.35	133.50	133.20	133.35	133.50	133.20	133.35	133.50	
D1	5.00 BSC			6.00 BSC			7.00 BSC			4
D2	1.50 BSC			2.50 BSC			3.50 BSC			4
E	—	—	4.00	—	—	4.00	—	—	4.00	5
E1	—	—	2.70	—	—	2.70	—	—	2.70	
e1	23.00 BSC			23.00 BSC			23.00 BSC			
e2	39.00 BSC			39.00 BSC			39.00 BSC			
e3	27.00 BSC			27.00 BSC			27.00 BSC			
e4	23.00 BSC			23.00 BSC			23.00 BSC			
N	232			232			232			9
ISSUE	A			A			A			
REF	11.14-042			11.14-042			11.14-042			
NOTES	1,2,3			1,2,3			1,2,3			

JEDEC
SOLID STATE PRODUCT
OUTLINE

TITLE
DDR SDRAM DUAL INLINE
MEMORY MODULE (DIMM) FAMILY,
1.00mm CONTACT CENTERS.

ISSUE
A

DATE
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SDRAM VARIATIONS

SYMBOL	BA-XX \triangle_{12}			BB-XX \triangle_{12}			BC-XX \triangle_{12}			NOTE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
A	29.85	30.00	30.15	29.85	30.00	30.15	29.85	30.00	30.15	
A1	10.00 BSC			10.00 BSC			10.00 BSC			
A2	0.05	0.20	0.35	0.05	0.20	0.35	0.05	0.20	0.35	
A3	17.78 BSC			17.78 BSC			17.78 BSC			
A4	20.78	—	—	20.78	—	—	20.78	—	—	
D	133.20	133.35	133.50	133.20	133.35	133.50	133.20	133.35	133.50	
D1	5.00 BSC			6.00 BSC			7.00 BSC			4
D2	1.50 BSC			2.50 BSC			3.50 BSC			4
E	—	—	4.00	—	—	4.00	—	—	4.00	5
E1	—	—	2.70	—	—	2.70	—	—	2.70	
e1	23.00 BSC			23.00 BSC			23.00 BSC			
e2	39.00 BSC			39.00 BSC			39.00 BSC			
e3	27.00 BSC			27.00 BSC			27.00 BSC			
e4	23.00 BSC			23.00 BSC			23.00 BSC			
N	232			232			232			9
ISSUE	A			A			A			
REF	11.14-042			11.14-042			11.14-042			
NOTES	1,2,3			1,2,3			1,2,3			

SYMBOL	CA-XX \triangle_{12}			CB-XX \triangle_{12}			CC-XX \triangle_{12}			NOTE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
A	37.85	38.00	38.15	37.85	38.00	38.15	37.85	38.00	38.15	
A1	10.00 BSC			10.00 BSC			10.00 BSC			
A2	0.05	0.20	0.35	0.05	0.20	0.35	0.05	0.20	0.35	
A3	17.78 BSC			17.78 BSC			17.78 BSC			
A4	20.78	—	—	20.78	—	—	20.78	—	—	
D	133.20	133.35	133.50	133.20	133.35	133.50	133.20	133.35	133.50	
D1	5.00 BSC			6.00 BSC			7.00 BSC			4
D2	1.50 BSC			2.50 BSC			3.50 BSC			4
E	—	—	4.00	—	—	4.00	—	—	4.00	5
E1	—	—	2.70	—	—	2.70	—	—	2.70	
e1	23.00 BSC			23.00 BSC			23.00 BSC			
e2	39.00 BSC			39.00 BSC			39.00 BSC			
e3	27.00 BSC			27.00 BSC			27.00 BSC			
e4	23.00 BSC			23.00 BSC			23.00 BSC			
N	232			232			232			9
ISSUE	A			A			A			
REF	11.14-042			11.14-042			11.14-042			
NOTES	1,2,3			1,2,3			1,2,3			

NOTES:

1. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5M-1994.
2. TOLERANCES ON ALL DIMENSIONS ± 0.15 UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS ARE IN mm.
4. THE JC-42.5 COMMITTEE CONTROLS THE SIGNIFICANCE OF OFFSET KEY POSITION. IT IS SHOWN FOR REFERENCE ONLY, AND IS SUBJECT TO CHANGE.
5. DIMENSIONS APPLICABLE WHEN COMPONENTS MOUNTED ON ONE OR BOTH SIDES.
6. CARD THICKNESS APPLIES ACROSS TABS AND INCLUDES PLATING AND/OR METALIZATION.
7. BORDER OF COMPONENT AREA.
8. VARYING THE POSITION OF THE NOTCH IDENTIFIES THE OPERATIONAL VOLTAGE: 2.5 VOLTS(XA), 1.8 VOLTS(XB), OR (XC), (X.X) VOLTS.
9. N IS THE TOTAL NUMBER OF CIRCUIT CONTACTS (PINS, LEADS, TABS, PADS)
10. 3.00 mm MINIMUM APPLIES TO BOTH 4.00 mm WIDE NOTCH LENGTH AND COMPONENT KEEPOUT AREA.
11. LEADING EDGE OF CONTACT PADS SPECIFIED BY THE KEEP OUT ZONE SHALL BE FREE OF BURRS AND EXTERNAL TIE BARS. FOR OPTIMUM PERFORMANCE, THE TIE BAR IS TO BE ON AN INTERNAL LAYER SO THAT THE REMNANT CANNOT CAUSE CONTACT DAMAGE.
12. XX DEPENDING UPON MECHANICAL KEYING VARIATION.

APPLICATION NOTES:

13. RECOMMENDED PLATING FOR CONTACT PADS ARE:
 - 1) PREFERABLE PLATING: ELECTROLYTIC GOLD PLATING 0.76 MICROMETERS MINIMUM OVER ELECTROLYTIC NICKEL 2.00 MICROMETERS MINIMUM.
 - 2) ALTERNATIVE PLATING: GOLD PLATING 0.05-0.75 MICROMETERS OVER NICKEL 2.00 MICROMETERS MINIMUM MUST USE AN ELECTRONIC CONTACT GRADE CORROSIVE BARRIER LUBRICANT.

JEDEC SOLID STATE PRODUCT OUTLINE	TITLE DDR SDRAM DUAL INLINE MEMORY MODULE (DIMM) FAMILY, 1.00mm CONTACT CENTERS.	ISSUE A	DATE 11/00	MO-227	SHEET 9 OF 9
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