M0 - 094

TapePak
MOLDED CARRIER
RING FAMILY

PATENTED PRODUCT

TABLE I

SUMMARY OF VARIATIONS

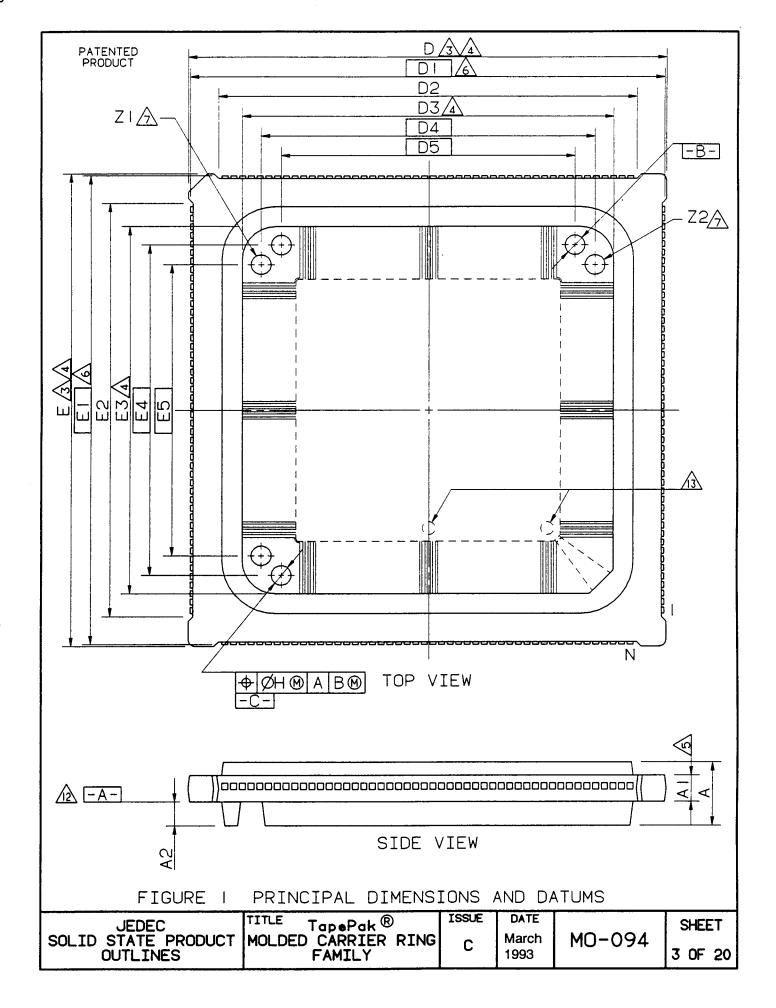
TEST PITCH	SIZE	N	VARIATION
	36×36	192	AA
	46×46	256	AB
0.65	56×56	312	· AC
0.65	66×66	376	AD
	76×76	440	AE
	86×86	496	AF
	36×36	248	ВА
	46×46	328	ВВ
0.5	56×56	408	ВС
0.5	66×66	488	BD
	76×76	568	BE
	86×86	648	BF
	36×36	312	CA
	46×46	408	CB
0.4	56×56	512	CC
0.4	66×66	608	CD
	76×76	712	CE
	- 86×86	808	CF
	36×36	416	DA
	46×46	552	DB
0.7	56×56	680	DC
0.3	66×66	816	DD
	76×76	952	DE
	86×86	1080	DF

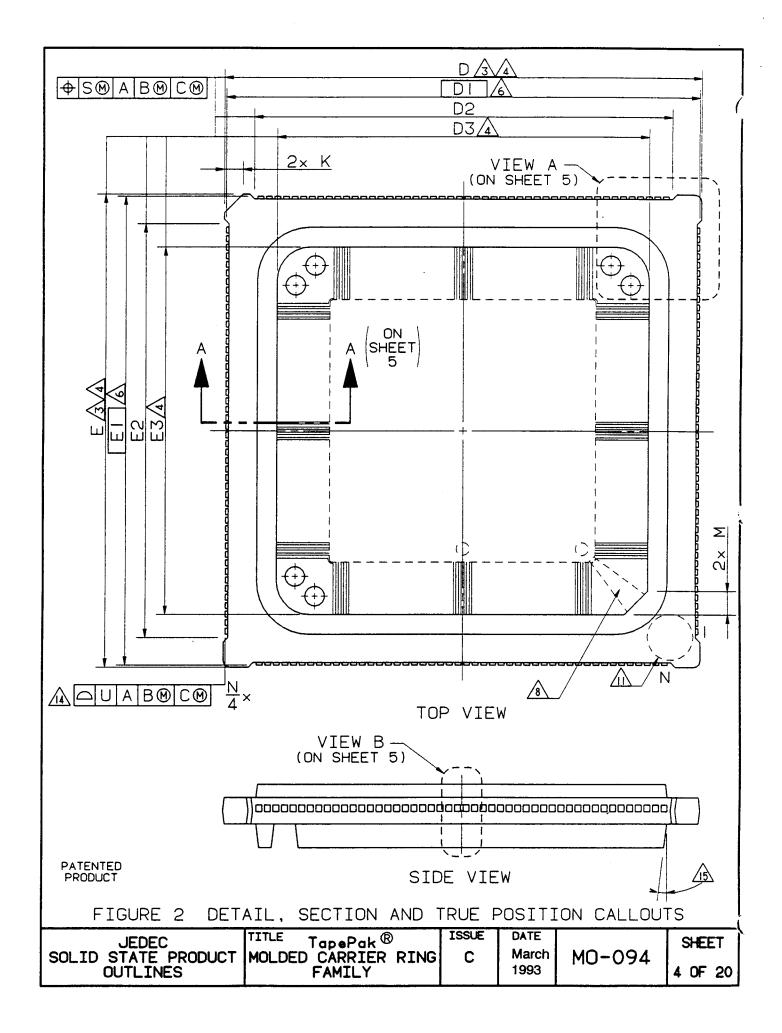
JEDEC	TITLE TapePak®	ISSUE	DATE	MN-094	SHEET
SOLID STATE PRODUCT OUTLINES	MOLDED CARRIER RING FAMILY	С	March 1993	MU-094	I OF 20

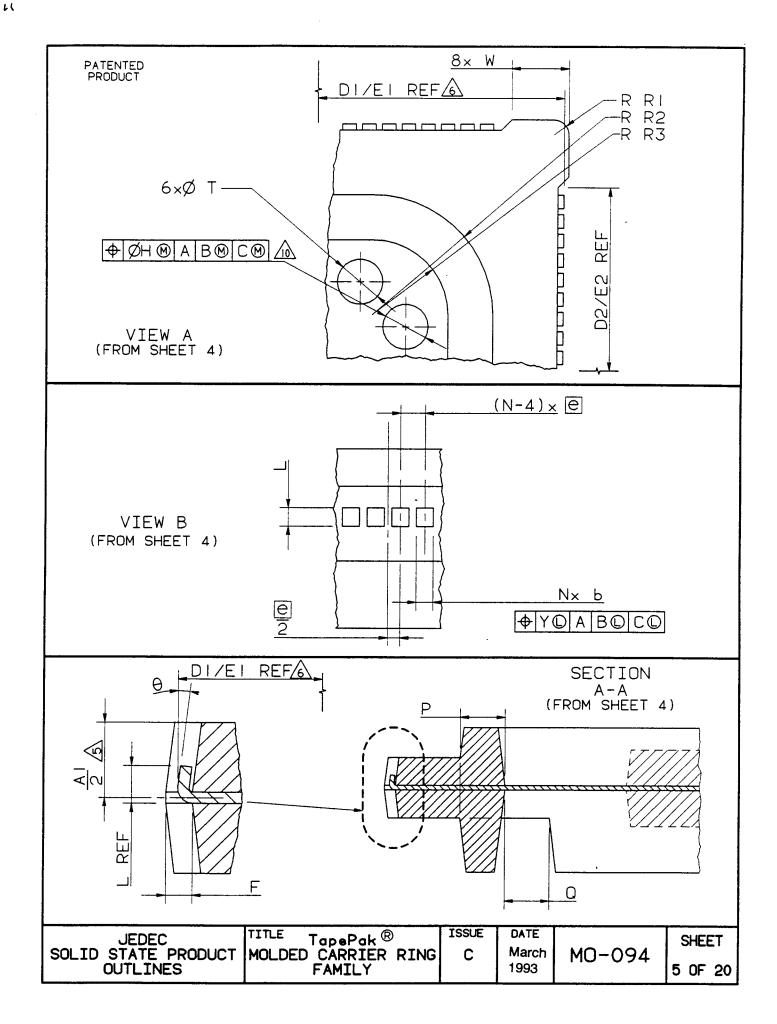
TABLE 2 APPLICATION NOTES

PACKAGE RING SIZE		P D-7404	F-QFP EIAJ ED-7404-1			LPPQFP JEDEC MO-086		DFP MO-069
36×36	10×10 14×14 20×20	7×10 10×14 14×20	10×10 12×12 14×14 20×20	7×10 10×14 14×20	44 68 100	52 84	52 84	68
46×46	20×20 28×28	20×28	20×20 24×24 28×28	14×20 20×28	84 132 164	00 48	84 132	100
56×56	28×28 40×40	20×28 28×40	28×28 32×32 36×36 40×40	20×28 28×40	148	164	164 244	196
66×66	40×40	28×40	40×40	44×44	-	- –	•	
76×76	56×56	40×56	40×40	44×44	-	-		
86×86	-	_	_	-	_	_		

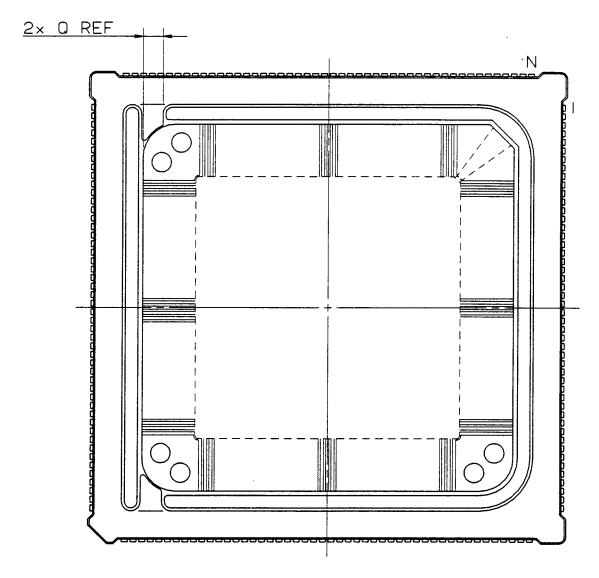
JEDEC SOLID STATE PRODUCT	TITLE TapePak® MOLDED CARRIER RING	ISSUE	DATE March	MO-094	SHEET
OUTLINES	FAMILY	L L	1993	110 094	2 OF 20





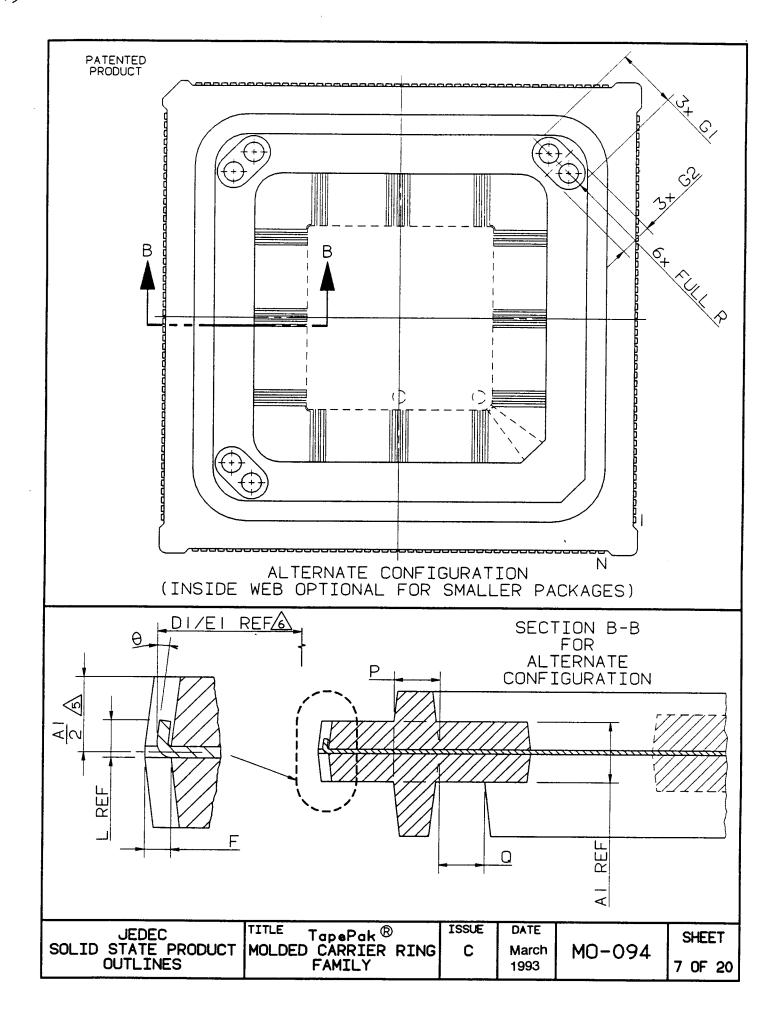


PATENTED PRODUCT



BOTTOM VIEW
DEPICTING ORIENTATION SLOT
DRAFT FEATURES SHOWN FOR CLARITY

JEDEC SOLID STATE PRODUCT	TITLE TapePak® MOLDED CARRIER RING	ISSUE	DATE March	MO-094	SHEET
OUTLINES	FAMILY	, i	1993	MU-094	6 OF 20



NOTES:

- 1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M-1982.
- 2. CONTROLLING DIMENSION: MILLIMETER.



D AND E DIMENSIONS DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE MOLD PROTRUSION IS 0.2 $_{\mbox{\scriptsize mm}}$ PER SIDE.



D, D3, E AND E3 DIMENSIONS INCLUDE MOLD MISMATCH, AND ARE MEASURED AT THE PARTING LINE.



AT DIMENSION CENTERED ABOUT CENTERLINE OF LEAD MATERIAL.



DIMENSIONS DI AND EI ARE FROM OUTSIDE EDGE TO OUTSIDE EDGE OF THE TEST POINTS.



THERE ARE SIX LOCATING HOLES IN THE RING. B AND C DATUM HOLES ARE TO BE USED FOR TRIM, FORM AND EXCISE OF THE MOLDED PACKAGE ONLY. HOLES ZI AND Z2 ARE TO BE USED FOR ELECTRICAL TESTING ONLY.



LOCATION OF THE SECONDARY GATE (GATE FOR THE MOLDED PACKAGE INSIDE THE CARRIER RING) IS 180° WITH RESPECT TO THE CHAMFERED CORNER OF THE CARRIER RING. THERE ARE NO HOLES ON THIS CORNER OF THE CARRIER RING. THE GATE, IF PRESENT, MAY BE ON THE TOP, BOTTOM OR BOTH SIDES OF THE LEADFRAME AS REQUIRED FOR GATING THE PARTICULAR PACKAGE.

9. IN THE INTEREST OF MORE COMPLETE STANDARDIZATION, THE RINGS SHOULD NOT BE DEPOPULATED.



NON-DATUM HOLES ONLY.



THIS AREA RESERVED FOR VACUUM PICKUP ON EACH OF THE FOUR CORNERS OF THE RING AND MUST BE FLAT WITHIN .025 $_{\rm mm}$. NO EJECTOR PINS IN THIS AREA.



DATUM A SURFACE FOR SEATING IN SOCKET APPLICATIONS.



PIN I ORIENTATION WITH RESPECT TO CARRIER RING AS INDICATED.



COPLANARITY APPLIES TO ALL FOUR TEST POINT ROWS.



DRAFT ANGLE 7±1° ON ALL RING FEATURES ON ALL VARIATIONS.

- 16. FOR RING-PACKAGE COMBINATIONS SEE TABLE 2, APPLICATION NOTES.
- 17. THIS TECHNOLOGY WAS DEVELOPED IN THE U.S.A. BY NATIONAL SEMI-CONDUCTOR CORPORATION AND MOTOROLA INC., WHO HAVE PATENTS IN THE U.S.A. PRODUCTS EMPLOYING THIS TECHNOLOGY ARE PRESENTLY MANUFACTURED BY NATIONAL SEMICONDUCTOR AND MOTOROLA INC., THROUGH WHOM LICENSING IS AVAILABLE IN COMPLIANCE WITH PARAGRAPH 3.4(B) OF E.I.A. ENGINEERING PUBLICATION 7-A.

- 1							
	JEDEC	TITLE TapePak	ISSUE	DATE		SHEET	ſ
	SOLID STATE PRODUCT OUTLINES	MOLDED CARRIER RING	С		MO-094	8 OF 20	ļ
1	OUILINES	FAMILY	ł	1993		0 Ur 20	1

S Y		VARIATIO	NS (ALL D		IONS IN M	ILLIMETERS	3)				
SYMBOL		AA		M-10Z		AB		NOLE			
L	MIN.	NOM.	MAX.	E	MIN.	NOM.	MAX.	E			
A A I A 2 D D I D 2	4.70 1.90 1.70 35.87 31.37	4.80 2.00 1.80 36.00 35.7 BSC 31.50	4.90 2.10 1.90 36.13 31.63	5 3,4 6	4.70 1.90 1.70 45.87 41.37	4.80 2.00 1.80 46.00 45.7 BSC 41.50	4.90 2.10 1.90 46.13 41.63	5 3,4 6			
D3 D4 D5 E	27.87 35.87	28.00 25.2 BSC 22.2 BSC 36.00	28.13 36.13	3,4	37.87 45.87	38.00 35.2 BSC 32.2 BSC 46.00	38.13	3,4			
E1 E2 E3	 31.37 27.87	35.7 BSC 31.50 28.00	31.63	6 4	41.37	45.7 BSC 41.50 38.00	 41.63 38.13	6			
E4 E5 FG2 KLMZPGR23	0.20 4.47 2.37 1.27 0.45 1.30 1.37 1.37 0.40 3.50 2.00	25.2 BSC 22.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 192 1.50 0.50 4.00 2.50	0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.00	9	0.20 4.47 2.37 1.27 0.45 1.30 1.37 1.37 0.40 3.50 2.00	35.2 BSC 32.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 256 1.50 0.50 4.00 2.50	0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.00	9			
ТуьеФ ІО	1.45 1.77 0.40 0°	1.50 1.90 0.45 0.65 BSC TOLERANCES 0.05 0.10	1.55 2.03 0.50 	10	1.45 1.77 0.40 0°	1.50 1.90 0.45 0.65 BSC TOLERANCES 0.05 0.10	1.55 2.03 0.50 	10			
U Y NOTE	1.2.5	0.25	13 14	15 16	. 17	0.25					
REF.	1,2,5,7,8,11,12,13,14,15,16,17										
ISSUE											
SOLID	JEDEC STATE PRO OUTLINES	ODUCT MOLE	TapePal DED CARRIE FAMILY	ER RIN	1 _ 1	March 1993	-()941	OF 20			

S Y	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS)								
SY M BO		AC		M-102		AD		NOTE	
L	MIN.	NOM.	MAX.	E	MIN.	NOM.	MAX.	E	
L A A 2 D D 2 3 4 5 E E E E E E F G G K L M Z P G R R R T	4.70 1.90 1.70 55.87 51.37 47.87 55.87 51.37 47.87 0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40 3.50 2.00 1.45	4.80 2.00 1.80 56.7 55.7 48.00 45.2 85.42 55.7 48.00 45.2 85.42 6.00 45.2 85.42 6.00 45.2 85.42 6.00	4.90 2.10 1.90 56.13 51.63 48.13 50 51.63 48.13 50 51.63 48.13 60 60 60 60 60 60 60 60 60 60	5 3,4 4 3,4 4	4.70 1.90 1.70 65.87 61.37 57.87 65.87 61.37 57.87 0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40 3.50 2.00 1.45	4.80 2.00 66.7 50 65.7 50 55.2 BSC 55.2 66.7 50 55.2 BSC 65.1 50 55.2 BSC 65.1 50 55.2 BSC 65.2 BSC 65.2 BSC 65.3 BSC 65.4 60 65.2 BSC 65.2 BSC 65.2 BSC 65.2 BSC 65.3 BSC 65.4 60 65.5 60 65.	4.90 2.10 1.90 66.13 58.13 66.13 58.13 0.50 4.63 58.30 1.63 0.50 1.63 0.50 1.55	5 3,4 6 4 3,6 4	
W b e O H S U Y NOTE REF.		11-268	 CES	10	1.77 0.40 0°	1.90 0.45 0.65 BSC TOLERANCES 0.05 0.10 0.25 0.07		10	
ISSUE		A	TLE - D		ISSUE	DATE			
SOLID	JEDEC STATE PROUTLINES	i	OLDED CARRIE FAMILY	ER RIN	IG C		-ngal	SHEET OF 20	

S		VARIATIO	ONS (ALL D		IONS IN N	4ILLIMET	ERS)		
MBC		AE		ŌZ		AF			IOZ
L	MIN.	NOM.	MAX.	Ę	MIN.	NOM.		MAX.	Ē
A A A D D D D D D E E E E E E G G K L M Z P O R	MIN. 4.70 1.90 1.70 75.87 71.37 67.87 75.87 75.87 0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40	4.80 2.00 1.80 76.00 75.7 BSC 71.50 68.00 65.2 BSC 76.00 75.7 BSC 71.50 68.00 65.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 440 1.50 0.50	71.63 68.13 0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60	5 3 6 4 3 6 4 9	 81.37 77.87 0.20 4.47 2.37 1.27 0.45 1.30	NOM. 4.80 2.00 1.80 86.0 85.7 E 81.5 78.0 75.2 E 86.0 85.7 E 72.2 E 0.35 4.60 2.50 1.80 4.96 1.50 0.50	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAX. 4.90 2.10 1.90 86.13 81.63 78.13 86.13 0.50 4.73 2.63 1.53 0.85 2.30 1.63 0.60	3,4
R2 R3 TWbee HSUY NOTE REF.	1,2,5,7	4.00 2.50 1.50 1.90 0.45 0.65 BSC TOLERANCES 0.05 0.10 0.25 0.07 7,8,11,12 11-280 B	2,13,14,	10		4.00 2.50 1.50 0.45 0.65 B TOLERAN 0.05 0.10 0.25 0.07	SSC CES	4.50 3.00 1.55 2.03 0.50	10
SOLID	JEDEC STATE PRO OUTLINES	ODUCT MOLI	E TapePal DED CARRIE FAMILY	ER RIN		March 1993	10-0	94	SHEET IIOF 20

Ş	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS)								
SYMBOL		ВА		20		BB		Ŋ	
Ĉ.	MIN.	NOM.	MAX.	M-102	MIN.	NOM.	MAX.	ZOFE	
A A I A 2 D D I D 2 D 3	4.70 1.90 1.70 35.87 31.37 27.87	4.80 2.00 1.80 36.00 35.7 BSC 31.50 28.00	4.90 2.10 1.90 36.13 31.63 28.13	5 3,4 6 4	4.70 1.90 1.70 45.87 41.37 37.87	4.80 2.00 1.80 46.00 45.7 BSC 41.50 38.00	41.63	5 3,4 6	
D4 D5 E E1 E2 E3	 35.87 31.37 27.87	25.2 BSC 22.2 BSC 36.00 35.7 BSC 31.50 28.00	26.13 36.13 31.63 28.13	3,4	45.87 45.87 41.37 37.87	35.2 BSC 32.2 BSC 46.00 45.7 BSC 41.50 38.00	46.13 41.63 38.13	3,4	
E 5 F G G K L M Z P G R R R T W b		25.2 BSC 22.35 4.50 0.45 0.80 1.50 0.50 4.50 0.50 1.50 0.35	0.50 4.73 2.63 0.85 1.63 0.63 1.60 4.50 4.50 4.50 1.53 0.40	9	0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40 3.50 2.00 1.45 1.77 0.30	35.2 BSC 32.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 328 1.50 0.50 4.50 1.50 1.50 1.90 0.35		9	
e θ H S U Y	0°		10	0°	0.50 BSC TOLERANCES 0.05 0.10 0.25 0.07	 	10		
REF.		11-268							
SOLID	JEDEC STATE PRO OUTLINES	A TITL MOLI	E TapePak DED CARRIE FAMILY	ER RIN	G C	DATE March 1993	-/19/1	SHEET	

S		VARIATIONS (ALL DIMENSIONS IN MILLIMETERS) BC N BD N								
SYMBOL		BC		NOT E		BD		ZO-É		
<u> </u>	MIN.	NOM.	MAX.	Ē	MIN.	NOM.	MAX.	Ē		
A A I A 2 D I D 2 D 3 D 3	4.70 1.90 1.70 55.87 51.37 47.87	4.80 2.00 1.80 56.00 55.7 BSC 51.50 48.00	4.90 2.10 1.90 56.13 51.63 48.13	5 3,4 6 4	4.70 1.90 1.70 65.87 61.37 57.87	4.80 2.00 1.80 66.00 65.7 BSC 61.50 58.00	4.90 2.10 1.90 66.13 61.63 58.13	5 3,4 6 4		
D4 D5 E E1 E2 E3 E4	55.87 51.37 47.87	45.2 BSC 42.2 BSC 56.00 55.7 BSC 51.50 48.00 45.2 BSC	56.13 51.63 48.13	3,4	65.87 61.37 57.87	55.2 BSC 52.2 BSC 66.00 65.7 BSC 61.50 58.00 55.2 BSC	66.13 61.63 58.13	3,4		
EF G G K L M N P G F R R T :	0.20 4.47 2.37 1.27 0.45 1.30 1.37 1.37 0.40 3.50 2.00 1.45	42.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 408 1.50 1.50 0.50 4.00 2.50	0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.00 1.55	9	0.20 4.47 2.37 1.27 0.45 1.30 1.37 1.37 0.40 3.50 2.00 1.45	52.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 520 1.50 0.50 4.00 2.50	0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.05	9		
W D e O I N U Y		1.90 0.35 0.50 BSC TOLERANCES 0.05 0.10 0.25 0.07		10		1.90 0.35 0.50 BSC TOLERANCES 0.05 0.10 0.25 0.07	2.03	10		
NOTE	1,2,5,7	7,8,11,12	,13,14,	<u>15,16</u>	, 17	11 00				
REF. ISSUE		11-268 A				11-28 B	U			
	JEDEC STATE PRO OUTLINES	TITLE	TapePak DED CARRIE FAMILY	ER RIN		DATE	-()941	HEET OF 20		

S		VARIATIONS (ALL DIMENSIONS IN MILLIMETERS) RE N RE								
SYMBOL		BE			Z0+E		BF		ZOFE	
O L	MIN.	NOM	•	MAX.	Ē	MIN.	NOM.	MAX.	T E	
A A A D D D D D D E E E E E E F G G K L	4.70 1.90 1.70 75.87 71.37 67.87 75.87 71.37 67.87 0.20 4.47 2.37 1.27 0.45	4.8 2.0 1.8 76.7 75.7 65.2 65.2 75.7 68.0 75.7 65.2 0.3 4.6 2.5 1.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.90 2.10 1.90 76.13 71.63 68.13 76.13 71.63 68.13 0.50 4.73 2.63 1.53 0.85	5 3,4 6 4 3,4 6	4.70 1.90 1.70 85.87 81.37 77.87 85.87 81.37 77.87 0.20 4.47 2.37 1.27 0.45	4.80 2.00 1.80 86.00 85.7 BSC 81.50 78.00 75.2 BSC 86.00 85.7 BSC 81.50 78.00 75.2 BSC 0.35 4.60 2.50 1.40 0.65	4.90 2.10 1.90 86.13 81.63 78.13 86.13 78.13 0.50 4.73 2.63 1.53 0.85	5 3,4 6 4	
M Z P O R R R T W b e o	1.30 1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.30	1.8 568 1.5 0.5 4.5 1.9 0.5 0.5	3 0 0 0 0 0 0 0 0 5	2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.40	9	1.30 1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.30	1.80 648 1.50 1.50 0.50 4.00 2.50 1.50 1.90 0.35 0.50 BSC	2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.40 	9	
θ H S U Y	TOLERANCES 0.05 0.10 0.25 0.07				10	U	O.05 O.10 O.25 O.07	<u> </u>	10	
NOTE	1,2,5,	7,8,11	, 12	,13,14,	15,16	, 17				
REF.		11-2		<u> </u>						
ISSUE		В							(
SOLID	JEDEC STATE PR OUTLINES		MOL[TapePal DED CARRII FAMILY	ER RIN	ISSUE C	March 1993	-094	SHEET 4 OF 20	

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S Y	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS) CA N CB								
SYMBOL	CA			NOT-E		M-10Z			
Ľ	MIN.	NOM.	MAX.	Ē	MIN.	NOM.	MAX.	T E	
A A A D D D D D E E E E E E E F G G K L M Z P G R R R T W b	31.37 27.87 35.87	4.80 2.00 1.80 36.00 35.7 BSC 28.00 25.2 BSC 35.7 50 28.00 25.2 BSC 0.35.1.50 28.2 BSC 0.40 0.65 1.50 0.65 1.50 0.25.2 BSC 0.65 1.50 0.25 1.50 0.25 1.50 0.25 1.50 0.25 1.50 0.25 1.50 0.25 1.50	31.63 28.13 36.13 31.63 28.13	5 3,4 6 4 3,4 6 4	4.70 1.90 1.70 45.87 41.37 37.87 45.87 45.87 0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40 3.50 2.00 1.45 1.77 0.22	4.80 2.00 1.80 46.00 45.7 BSC 41.50 38.00 35.2 BSC 46.00 35.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 408 1.50 0.50 0.50 1.50 0.25	41.63 38.13 46.13 41.63 38.13	5 3,4 4 3,4 4 9	
е Ө Н S U Y	0°	0.40 BSC TOLERANCES 0.05 0.10 0.25 0.04		10	0°	0.40 BSC TOLERANCES 0.05 0.10 0.25 0.04	 	10	
NOTE	1.2.5	7.8.11.12	0.13.14	15.1 <i>6</i>	. 17				
REF.	1,2,5,7,8,11,12,13,14,15,16,17 11-280								
ISSUE	В								
SOLID	JEDEC SOLID STATE PRODUCT MOLDED CARRIER RING C March 1993 MO-094 15 OF 20								

S Y	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS) CC N CD								
M B [YARIATIONS CC MIN. NOM.			m-10%		ZOFE			
5	MIN.	NOM.	MAX.	Ė	MIN.	NOM.	MAX.	Ė	
A A1 A2 D D1 D2 D3 D4	4.70 1.90 1.70 55.87 51.37 47.87	4.80 2.00 1.80 56.00 55.7 BSC 51.50 48.00 45.2 BSC	51.63 48.13 	5 3,4 6 4	4.70 1.90 1.70 65.87 61.37 57.87	4.80 2.00 1.80 66.00 65.7 BSC 61.50 58.00 55.2 BSC	61.63 58.13	5 3,4 6 4	
D5 E E1 E2 E3 E4	55.87 51.37 47.87	42.2 BSC 56.00 55.7 BSC 51.50 48.00 45.2 BSC	56.13 51.63 48.13	3,4	65.87 61.37 57.87	52.2 BSC 66.00 65.7 BSC 61.50 58.00 55.2 BSC	66.13 61.63 58.13	3,4	
55 F G G K L M Z P G R R R T W b e	0.20 4.47 2.37 1.27 0.45 1.30 1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.22	42.2 BSC 0.35 4.60 2.50 1.40 0.65 1.50 0.50 4.00 2.50 1.50 0.50 1.50 0.25 0.40 BSC	0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.28	9	0.20 4.47 2.37 1.27 0.45 1.30 1.37 0.40 3.50 2.00 1.45 1.77 0.22	52.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 608 1.50 0.50 4.00 2.50 1.50 0.25 0.40 BSC	 0.50 4.73 2.63 1.53 0.85 2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.28	9	
θ H S U Y	0°	70LERANCES 0.05 0.10 0.25 0.04		10	0°	70LERANCES 0.05 0.10 0.25 0.04		10	
NOTE	1,2,5,7,8,11,12,13,14,15,16,17							1	
REF.	11-280								
ISSUE	В								
JEDEC SOLID STATE PRODUCT MOLDED CARRIER RING C March 1993 MO-094 16 OF 20									

S	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS)							
SYMBOL	CE			m-102	CF			ZO-E
L L	MIN.	NOM.	MAX.	T E	MIN.	NOM.	MAX.	T E
A A1 A2 D D1 D2 D3	4.70 1.90 1.70 75.87 71.37 67.87	4.80 2.00 1.80 76.00 75.7 BSC 71.50 68.00	4.90 2.10 1.90 76.13 71.63 68.13	5 3,4 6 4	4.70 I.90 I.70 85.87 8I.37 77.87	4.80 2.00 1.80 86.00 85.7 BSC 81.50 78.00	4.90 2.10 1.90 86.13 81.63 78.13	5 3,4 6 4
D4 D5 E E1 E2 E3 E4	75.87 71.37 67.87	65.2 BSC 62.2 BSC 76.00 75.7 BSC 71.50 68.00 65.2 BSC	76.13 71.63 68.13	3,4 6 4	85.87 81.37 77.87	75.2 BSC 72.2 BSC 86.00 85.7 BSC 81.50 78.00 75.2 BSC	86.13 81.63 78.13	3,4 6 4
E5 F G G K L M N	0.20 4.47 2.37 1.27 0.45 1.30	62.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 712	0.50 4.73 2.63 1.53 0.85 2.30	9	0.20 4.47 2.37 1.27 0.45 1.30	72.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 808	0.50 4.73 2.63 1.53 0.85 2.30	9
Р О П 22 33 Т ¥ Ь	1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.22	1.50 1.50 0.50 4.00 2.50 1.50 1.90 0.25	1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.28		1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.22	1.50 1.50 0.50 4.00 2.50 1.50 1.90 0.25	1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.28	
е Ө	0°	0.40 BSC			0°	0.40 BSC		
Ď		TOLERANCES			TOLERANCES			-
∣ н ∣	0.05			10	0.05			10
S	0.10					0.10		
U	0.25					0.25		
Y		0.04				0.04		
NOTE	1,2,5,7,8,11,12,13,14,15,16,17							
REF.	11-280							
ISSUE		B			I TOOLIE I	DATE 1		
SOLID STATE PRODUCT MOLDED CARRIER RING C March 1993 MO-094 17 0F 20								

S	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS)								
SYMBOL	DA			NOT E	DB			OZ	
Ö L	MIN.	NOM.	MAX.	Ē	MIN.	NOM.	MAX.	ZOFE	
A A A A A D D A D B D A D E	4.70 1.90 1.70 35.87 31.37 27.87 35.87	4.80 2.00 1.80 36.00 35.7 BSC 31.50 28.00 25.2 BSC 22.2 BSC 36.00	4.90 2.10 1.90 36.13 31.63 28.13 36.13	5 3,4 6 4	4.70 1.90 1.70 45.87 41.37 37.87 45.87	4.80 2.00 1.80 46.00 45.7 BSC 41.50 38.00 35.2 BSC 32.2 BSC 46.00	4.90 2.10 1.90 46.13 41.63 38.13 46.13	5 3,4 6 4	
E E2 E3 E4	31.37 27.87	35.7 BSC 31.50 28.00. 25.2 BSC	31.63 28.13	4	41.37 37.87	45.7 BSC 41.50 38.00 35.2 BSC	41.63 38.13	4	
E F G G K L Z Z P	0.20 4.47 2.37 1.27 0.45 1.30	22.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 416 1.50	0.50 4.73 2.63 1.53 0.85 2.30	9	0.20 4.47 2.37 1.27 0.45 1.30	32.2 BSC 0.35 4.60 2.50 1.40 0.65 1.80 552	0.50 4.73 2.63 1.53 0.85 2.30	9	
0 - 2 B B B B B B B B B B B B B B B B B B	1.37 0.40 3.50 2.00 1.45 1.77 0.16	1.50 0.50 4.00 2.50 1.50 1.90 0.18 0.30 BSC	1.63 0.60 4.50 3.00 1.55 2.03 0.20		1.37 0.40 3.50 2.00 1.45 1.77 0.16	1.50 0.50 4.00 2.50 1.50 1.90 0.18 0.30 BSC	1.63 0.60 4.50 3.00 1.55 2.03 0.20		
Y C O I		0.05 0.10 0.25 0.03		10		0.05 0.10 0.25 0.03		10	
NOTE	1,2,5,	7,8,11,12	2,13,14,	15,16	5,17				
REF.		11-280							
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JEDEC TapePak ISSUE DATE SHEET SOLID STATE PRODUCT MOLDED CARRIER RING C March MO-094 18 05 30									

STATE PRODUCT OUTLINES MOLDED CARRIER RING FAMILY 18 OF 20 1993

S	VARIATIONS (ALL DIMENSIONS IN MILLIMETERS) DC N DD								
SYMBOL	DC			m-10Z		M-10Z			
L	MIN.	NOM.	MAX.	Ë	MIN.	NOM.	MAX.	Ē	
A 1 2 D D D D D E E E E E F G G K L	4.70 1.90 1.70 55.87 51.37 47.87 55.87 51.37 47.87 0.20 4.47 2.37 1.27 0.45	4.80 2.00 1.80 56.00 55.7 BSC 51.50 48.00 45.2 BSC 56.00 55.7 BSC 51.50 48.00 45.2 BSC 42.2 BSC 0.35 4.60 2.50 1.40 0.65	4.90 2.10 1.90 56.13 51.63 48.13 56.13 51.63 48.13	5 3,4 6 4 3,4 6	4.70 1.90 1.70 65.87 61.37 57.87	4.80 2.00 1.80 66.00 65.7 BSC 61.50 55.2 BSC 66.7 BSC 65.7 BSC 65.7 BSC 65.2 BSC 58.2 BSC 0.35 4.60 2.50 1.40 0.65	4.90 2.10 1.90 66.13 61.63 58.13 66.13 61.63 58.13	5 3,4 6 4 3,4 6 4	
LMZPQF23FWbe	1.30 1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.16	1.80 680 1.50 1.50 0.50 4.00 2.50 1.50 1.90 0.18	2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.20	9	1.30 1.37 1.37 0.40 3.50 2.00 1.45 1.77 0.16	1.80 816 1.50 0.50 4.00 2.50 1.90 0.18 0.30 BSC	2.30 1.63 1.63 0.60 4.50 3.00 1.55 2.03 0.20	9	
θ Η S U Y	0° TOLERANCES 0.05 0.10 0.25 0.03			10	0°	 TOLERANCES 0.05 0.10 0.25 0.03	3	10	
NOTE	1,2,5,7,8,11,12,13,14,15,16,17								
REF.	11-280								
ISSUE	В								
SOLID	JEDEC LID STATE PRODUCT MOLDED CARRIER RING C March 1993 MO-094 19 0F 20								

NOTE | 1,2,5,7,8,11,12,13,14,15,16,17

REF. | 11-280

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JEDEC | TITLE | TapePak | ISSUE | DATE | SHEET

SOLID STATE PRODUCT OUTLINES

TITLE TapePak
MOLDED CARRIER RING
FAMILY

SHEET

20 OF 20