

FIGURE 1 $\triangle 7$

BOTTOM VIEW

JEDEC
SOLID STATE PRODUCT
OUTLINES

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

HIGH PROFILE PLASTIC
THERMALLY ENHANCED
ENLARGED PITCH DUAL
FLAT NO LEAD PACKAGE

JESD-30
DESIGNATOR
HE-PDFP-N

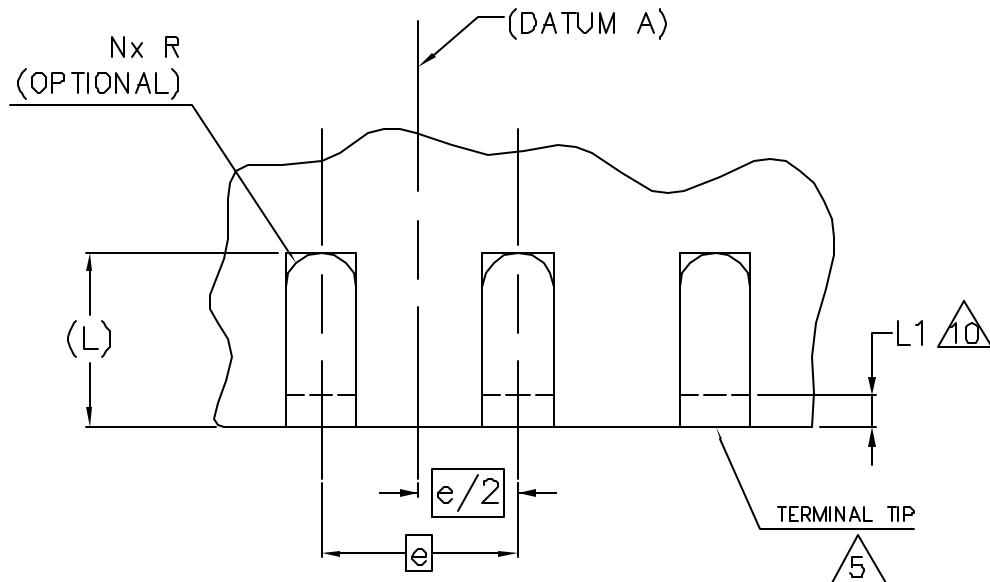
ISSUE
A

DATE
SEP 03

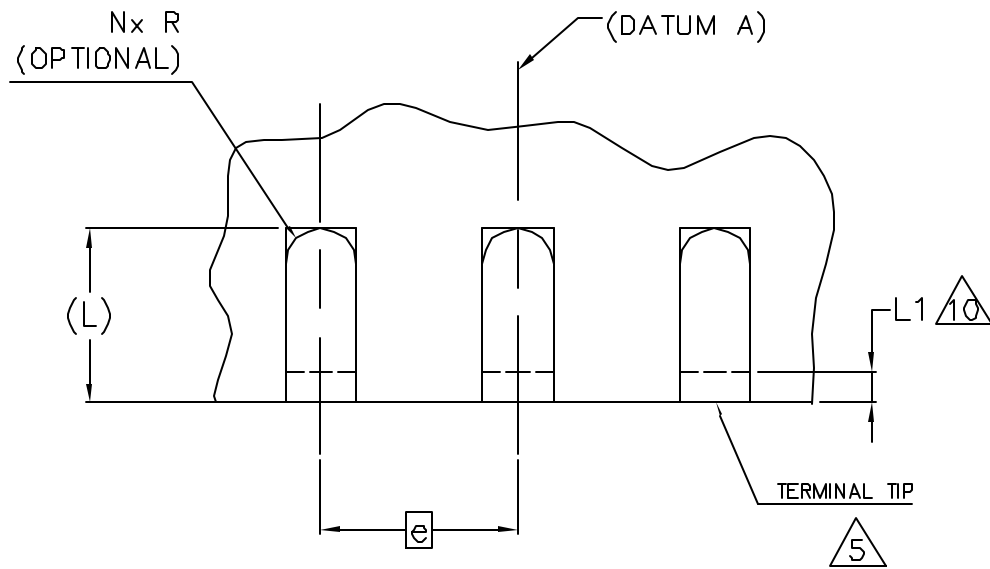
MO-245

SHEET
1 OF 7

DETAIL A



EVEN TERMINAL/SIDE



ODD TERMINAL/SIDE

TABLE 1

VARIATION DESIGNATORS							
FIRST DIGIT CODE		SECOND DIGIT CODE		THIRD DIGIT CODE		FOURTH DIGIT CODE	
<i>OVERALL HEIGHT</i>		<i>BODY LENGTH</i>		<i>BODY WIDTH</i>		<i>TERMINAL PITCH</i>	
A	LETTER CODE	D	LETTER CODE	E	LETTER CODE	e	LETTER CODE
2.20 MAX	A	5.00	A	5.00	A	2.50	A
1.95 MAX	B	6.00	B	6.00	B	1.75	B
		9.00	C	9.00	C	1.25	C
		10.50	D	10.50	D		

EXAMPLE : A 16 TERMINAL P-HPDFN WHICH IS 10.5mm LONG (DIMENSION D) BY 9mm WIDE (DIMENSION E) AND A 1.25mm PITCH WILL BE VARIATION ADCC.

TABLE 2

TOLERANCE OF FORM & POSITION	
SYMBOL	ALL PITCHES
aaa	0.15
bbb	0.10
ccc	0.10
ddd	0.05
eee	0.08
NOTES	1, 2
REF	11-638
ISSUE	A

TABLE 3

COMMON DIMENSIONS							
	A: VERY THICK			B: THICK			
SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX	NOTES
A	2.00	2.10	2.20	1.75	1.85	1.95	
A1	0	0.02	0.05	0	0.02	0.05	
A3	-	0.50 REF	-	-	0.25 REF	-	
L1	-	-	0.15	-	-	0.15	
k	0.50	-	-	0.50	-	-	
R	b MIN/2	-	-	b MIN/2	-	-	
NOTES	1, 2						
ISSUE	A						

TABLE 4

LEAD WIDTH			
b			
e	MIN	NOM	MAX
2.50	0.50	1.00	2.00
1.75	0.50	0.80	1.25
1.25	0.40	0.50	0.60
NOTES	1, 2		
REF	11-638		
ISSUE	A		

TABLE 5

SUMMARY TABLE					
BODY SIZE		LEAD PITCH	LEAD COUNT	VERY THICK	THICK
5.00 x	5.00	1.25	6	AAAC	BAAC
6.00 x	5.00	1.25	8	ABAC	BBAC
6.00 x	6.00	1.25	8	ABBC	BBBC
9.00 x	9.00	1.25	12	ACCC	BCCC
		1.75	10	ABBB	BBBB
10.50 x	10.50	1.25	16	ADDC	BDDC
		1.75	12	ADDB	Bddb
		2.50	8	ADDA	BDDA

TABLE 6

e = 2.50 mm						
VARIATION SYMBDL		ADDA				NOTE
		BDDA				
D	BSC	10.5				
E	BSC	10.5				
D2	MIN	8.50				
	NOM	—				
	MAX	9.50				
E2	MIN	5.50				
	NOM	—				
	MAX	6.50				
L	MIN	0.80				
	NOM	1.00				
	MAX	1.20				
N		8				3
NOTES		1, 2				
REF		11-638				
ISSUE		A				

TABLE 7

e = 1.75 mm						
SYMBOL \ VARIATION			ABBB	ADDB		NOTE
			BBBB	BDDB		
D BSC			9.00	10.50		
E BSC			9.00	10.50		
D2	MIN		7.00	8.50		
	NOM		—	—		
	MAX		8.00	9.50		
E2	MIN		5.00	5.50		
	NOM		—	—		
	MAX		6.00	6.50		
L	MIN		0.60	0.80		
	NOM		0.80	1.00		
	MAX		1.00	1.20		
N			10	12		3
NOTES			1, 2	1, 2		
REF			11-638	11-638		
ISSUE			A	A		

TABLE 8

[e] = 1.25 mm							
VARIATION SYMBOL		AAAC	ABAC	ABBC	ACCC	ADDC	NOTE
		BAAC	BBAC	BBBC	BCCC	BDDC	
D	BSC	5.00	6.00	6.00	9.00	10.5	
E	BSC	5.00	5.00	6.00	9.00	10.5	
D2	MIN	3.00	4.00	4.00	7.00	8.50	
	NOM	—	—	—	—	—	
	MAX	4.00	5.00	5.00	8.00	9.50	
E2	MIN	2.00	2.00	3.00	5.00	5.50	
	NOM	—	—	—	—	—	
	MAX	2.40	2.40	3.40	6.00	6.50	
L	MIN	0.40	0.40	0.40	0.60	0.80	
	NOM	0.60	0.60	0.60	0.80	1.00	
	MAX	0.80	0.80	0.80	1.00	1.20	
N		6	8	8	12	16	3
NOTES		1, 2	1, 2	1, 2	1, 2	1, 2	
REF		11-638	11-638	11-638	11-638	11-638	
ISSUE		A	A	A	A	A	

NOTES;

1. DIMENSIONS & TOLERANCING CONFIRM TO ASME Y14.5M-1994.
2. ALL DIMENSIONS ARE MILLIMETERS. ANGLES ARE IN DEGREES.
3. N IS THE MAXIMUM NUMBER OF TERMINALS.

△4. DETAILS OF TERMINAL #1 IDENTIFIER ARE OPTIONAL.
BUT MUST BE LOCATED WITHIN THE ZONE INDICATED.
THE TERMINAL #1 IDENTIFIER MAY BE EITHER A MOLD
OR MARKED FEATURE.

△5. DIMENSION b APPLIES TO METALLIZED TERMINAL AND IS MEASURED
BETWEEN 0.15 mm AND 0.30 mm FROM TERMINAL TIP. IF THE TERMINAL
HAS THE OPTIONAL RADIUS ON THE OTHER END OF THE TERMINAL,
THE DIMENSION b SHOULD NOT BE MEASURED IN THAT RADIUS AREA.

6. DEPOPULATION IS POSSIBLE IN A SYMMETRICAL FASHION.

△7. SAWN SINGULATION METHOD IS USED.

8. FOR A COMPLETE SET OF DIMENSIONS FOR EACH VARIATION, SEE THE
INDIVIDUAL VARIATION AND THE COMMON DIMENSIONS AND TOLERANCE
ON PAGES 3 AND 4.

△9. UNILATERAL COPLANARITY ZONE APPLIES TO THE EXPOSED HEAT SINK
SLUG AS WELL AS THE TERMINALS.

△10. DEPENDING ON METHOD OF LEAD TERMINATION AT THE EDGE OF THE
PACKAGE, A MAXIMUM 0.15 mm PULL BACK (L1) MAYBE PRESENT. L
MINUS L1 TO EQUAL TO OR GREATER THAN 0.30 mm.

JEDEC SOLID STATE PRODUCT OUTLINES	HIGH PROFILE PLASTIC THERMALLY ENHANCED ENLARGED PITCH DUAL FLAT NO LEAD PACKAGE	ISSUE A	DATE SEP 03	MO-245	SHEET 7 OF 7
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