





BOTTOM VIEW

(THERMALLY ENHANCED VARIATIONS ONLY)

JEDEC SOLID STATE PRODUCT OUTLINES	PLASTIC, LOW/THIN/VERY THIN SHRINK SMALL DUTLINE PACKAGE	ISSUE E	DATE DEC 2004	M□-187	3 NF 8
UOILINE 2	0.65 AND 0.50 PITCH		2004		

	COMMON DIMENSIONS AND TOLERANCES									
	ALL DIMEN	SIONS IN MI	LLIMETERS			TOLERANCES OF				
SYMBOL	MIN	N□M	MAX	NOTES	SYMBOL	FORM AND POSITION	NOTES			
A1	0		0.15		aaa	0.20				
С	0.08		0.23	7	bbb	0.25				
⊂1	0.08		0.18	7	ССС	0.10				
R	0.07									
R1	0.07				NOTES	1,2				
0	0°		8°		REF.	11-552				
0 1	5°		15°		ISSUE	В				
NOTES		1,2								
REF.	11-430									
ISSUE		А								
		•								

JEDEC	TITLE	ISSUE	DATE		4
SOLID STATE PRODUCT OUTLINES	PLASTIC, LOW/THIN/VERY THIN SHRINK SMALL DUTLINE PACKAGE 0.65 AND 0.50 PITCH	E	N□V 2004	M□-187	□F 8

					VARIA	ZNDITA	- TH]	N PR	OF IL	 E				
Ş			AA			ВА						TNE]TE	<u>-</u> S
SYMB O														
	ΜI	N.	N□M.	MAX.	MIN.	N□M.	MAX.	MIN.	N	M.	MAX.			
A	_	_		1.10			1.10							
A2	0.7	'5	0.85	0.95	0.75	0.85	0.95							
b	0.2	22		0.38	0.17		0.33							7
b1	0.2	2	0.30	0.33	0.17	0.20	0.23							7
D		3	3.00 BS0		3	3.00 BS	C			I				3,4
D1														
Ε		4	.90 BS	С		1.90 BS	С							
E1		3	.00 BSC	,	3	3.00 BS	С							3,4
E2														
е		0	.65 BS0	<u> </u>	().50 BS	С							
e1			95 BSC		2	.00 BS0								
L	0.4	0	0.60	0.80	0.40	0.60	0.80							
L1		0.	95 REF		0	.95 REI	F		<u>'</u>					
L2		0	.25 BS0	2	0	.25 BSI	С							
N			8			10								6,9
					TOLERA	NCES E	IF FORM	1 AND	POSI	TIO	N			<u> </u>
dd	d		0.13			0.08								
NO	TE		1,8			1,8								
REI	F	11-	-430/11	-552	11-5	552/11-	-694							
ISS	UE		A/B			B/E								
	•													
SYMBOL			AA-T		BA-T								$N\square$	TES
M						T								
	11M	٧.	N□M.	MAX.	MIN.	N□M.	MAX.	MIN.	N]M.	MAX			
A		_		1.10			1.10							
A2 b	0.7		0.85	0.95 0.38	0.75 0.17	0.85	0.95							
b1	0.2		0.30	0.33	0.17	0.20	0.23							/
D	0.6		00 BSC			3.00 BS								3,4
D1	0.75			2.50	0.75		2.50							10
E			.90 BS			.90 BS								
E1		3.	.00 BSC		3	00 BS	2							3,4
E2	0.7	5		2.50	0.75		2.50							10
е			1.65 BS			0.50 BS								
e1			95 BSC		l 	2.00 BS				- 1				
L	0.4		0.60	0.80	0.40	0.60	0.80							
L1 0.95 REF L2 0.25 BSC				.95 RE .25 BSI										
N L2		- 0	. <u></u> 8	_	⁰	ردم <u>دے.</u> 10	<u> </u>							6,9
'					IL TOLER		OF FOR	L AN	n PU	TII	ПИ			
dd	d T		0.13			0.08	<u>.</u> , , , , , ,	1114	,	1	,			
N□TE 1,8,10				1,8,10										
			11-	409/11	-694									
ISS	UE		D			D/E								
SOL		STA	EDEC ATE PR LINES	DUCT	SHRINK	SMALL DI	HIN/VER JTLINE PA	Y THIN	ISSUE E	DAT DE 200	с	M□-18	7	5 DF 8

			VA	ARIATI(⊒NS -	VERY	THIN	PROFIL	_E	
\$ CA									NOTES	
SYMB OL										
	MIN.	N□M.	MAX.	MIN.	N□M.	MAX.	MIN.	N□M.	MAX.	
Α			1.00							
A2	0.60	0.70	0.85							
b	0.17		0.33							7
b1	0.17	0.20	0.23							7
D		2.00 BS	2							3,4
D1										
Ε		3.10 BS0	2							
E1	ί	2.30 BS0								3,4
E3										
е	l	0.50 BS0								
e1	1	.50 BSC								
L	0.15	0.28	0.40							
∟1	C	0.40 REF								
L2		0.12 BSC	<u> </u>							
N 8									6,9	
			TOLERA	NCES [JF FORM	1 AND	POSITI	JN		
ddd	k	0.08								
ND.	TE	1,8								
REF 11-407/11-694										
ISSU	UE	C/E								

SULID STATE LEGIDOCT	TITLE PLASTIC, LOW/THIN/VERY THIN SHRINK SMALL DUTLINE PACKAGE	DATE DEC 2004	M□-187	6 DF 8
DUTLINES	0.65 AND 0.50 PITCH	2004		

				VARI	ZNOITA	S - LO	w PRO	FILE			
\$ DA									NOTES		
m∡<0											
	MIN.	N□M.	MAX.	MIN.	N□M.	MAX.	MIN.	N□M.	MAX.		
Α	-		1.35								
A2	1.00	1.10	1.20								
р	0.15		0.30								7
b1	0.15	0.20	0.23								7
D	, d	2.95 BS	С								3,4
D1											
Ε	4	4.00 BS	С								
E1	נט	2.80 BS0	2								3,4
E2											
е	C	0.65 BS	С								
e1	1.	95 BSC	•								
L	0.20	0.40	0.60								
L1	0	.60 REF	•								
L2	C	1.25 BS	C								
N	N 8									6,9	
				TOLERA	NCES E	JF FORM	1 AND F	DITIZO	N		
dd	d 0.13										
NO		1,8									
RE		10-407									
ISS	UE	С									

JEDEC	TITLE	ISSUE	DATE		7
SOLID STATE PRODUCT	PLASTIC, LOW/THIN/VERY THIN SHRINK SMALL DUTLINE PACKAGE 0.65 AND 0.50 PITCH	E	DEC 2004	M□-187	□F [′] 8

NOTES

- 1 DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
- 2 ALL DIMENSIONS ARE IN MILLIMETERS.



DIMENSION D DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS OR GATE BURRS SHALL NOT EXCEED 0.15 mm PER END. DIMENSION E1 DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL NOT EXCEED 0.15 mm PER SIDE. D AND E1 DIMENSIONS ARE DETERMINED AT DATUM H.



THE PACKAGE TOP MAY BE SMALLER THAN THE PACKAGE BOTTOM. DIMENSIONS D AND E1 ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY. D AND E1 DIMENSIONS ARE DETERMINED AT DATUM H.



DATUMS A-B TO BE DETERMINED AT DATUM H.



TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.



THESE DIMENSIONS APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.08 mm AND 0.15 mm FROM THE LEAD TIP.



DIMENSION '6' DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08 mm TOTAL IN EXCESS OF THE '6' DIMENSION AT MAXIMUM MATERIAL CONDITION. THE DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OF THE FOOT. MINIMUM SPACE BETWEEN PROTRUSION AND AN ADJACENT LEAD SHALL NOT BE LESS THAN 0.07 mm.



DETAILS OF THE PIN 1 IDENTIFIER ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE INDICATED.



CAUTION SHOULD BE TAKEN DURING DESIGN, ASSEMBLY AND PROCESSING TO PREVENT DEPOSITED BOARD SOLDER FROM HOLDING THE LEADS OFF THE BOARD. THIS IS APPLICABLE TO THERMAL ENHANCED VARIATIONS WHERE 'A1' DIMENSION IS ALLOWED TO BE ZERO.

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