

BOTTOM VIEW
(THERMALLY ENHANCED VARIATIONS ONLY)

JEDEC SOLID STATE
PRODUCT OUTLINE
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TITLE

PLASTIC THIN SHRINK
SMALL OUTLINE PACKAGE

PACKAGE DESIGNATOR

PDSO-G#-I##.....

NUMBER

MO-153

ISSUE

G

DATE

JAN 2018

SHEET

1 OF 17

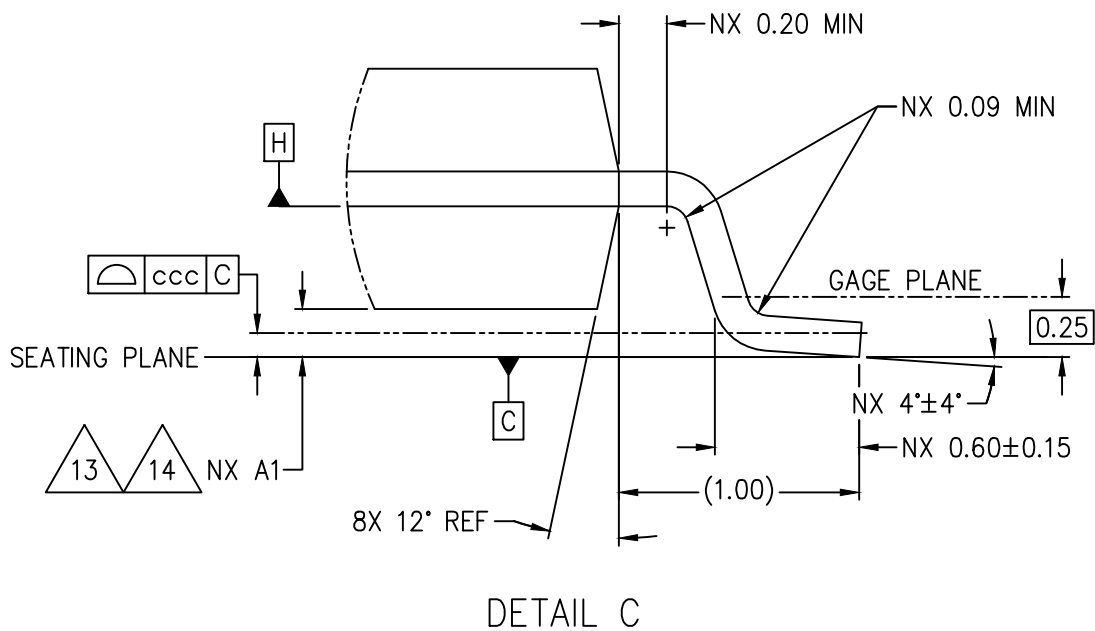
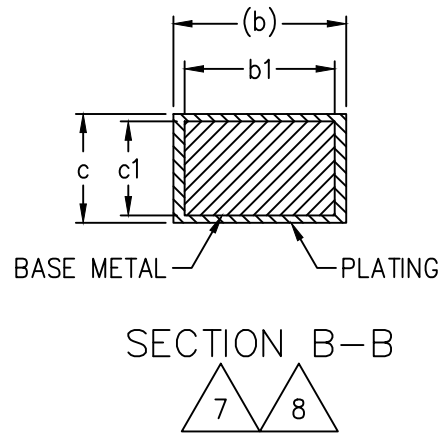
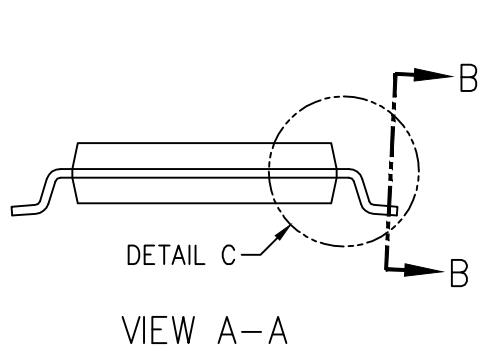


TABLE 1

SYMBOL	COMMON DIMENSIONS								
	TERMINAL								
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX
b	0.17	---	0.30	0.17	---	0.27	0.13	---	0.23
b1	0.17	0.21	0.25	0.17	0.20	0.23	0.13	0.16	0.19
c	0.09	---	0.20	0.09	---	0.20	0.09	---	0.20
c1	0.09	---	0.16	0.09	---	0.16	0.09	---	0.16
e	0.65 BASIC			0.50 BASIC			0.40 BASIC		
NOTES	1, 2, 5			1, 2, 5			1, 2, 5		
REF	11-360, 11-465, 11-950			11-360, 11-465			11-360, 11-465		
ISSUE	—			A			A		

TABLE 2

SYMBOL	TOLERANCE OF FORM AND POSITION		
	MIN	MIN	MIN
aaa	0.10	0.10	0.08
bbb	0.10	0.08	0.07
ccc	0.05	0.05	0.05
ddd	0.20	0.20	0.20
e	0.65 BASIC	0.50 BASIC	0.40 BASIC
NOTES	1, 2	1, 2	1, 2
REF	11-360 11-465	11-360 11-465	11-360 11-465
ISSUE	A	A	A

TABLE 3

TSSOP VARIATIONS – 0.40 PITCH BODY WIDTH (E1) = 4.40 NOM												
VARIATION	A1			D BASIC			E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX	
CA	0.05	---	0.15	4.90	5.00	5.10	6.40		4.30	4.40	4.50	24 11–360 A
CB	0.05	---	0.15	6.40	6.50	6.60	6.40		4.30	4.40	4.50	32 11–360 A
CC	0.05	---	0.15	7.70	7.80	7.90	6.40		4.30	4.40	4.50	36 11–360 A
CD	0.05	---	0.15	9.60	9.70	9.80	6.40		4.30	4.40	4.50	48 11–360 A
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5			2, 12 11

TABLE 4

TSSOP VARIATIONS – 0.40 PITCH BODY WIDTH (E1) = 6.10 NOM												
VARIATION	A1			D BASIC			E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX	
FA	0.05	---	0.15	7.70	7.80	7.90	8.10		6.00	6.10	6.20	36 11–360 A
FB	0.05	---	0.15	9.60	9.70	9.80	8.10		6.00	6.10	6.20	48 11–360 A
FC	0.05	---	0.15	10.90	11.00	11.10	8.10		6.00	6.10	6.20	52 11–360 A
FD	0.05	---	0.15	12.40	12.50	12.60	8.10		6.00	6.10	6.20	56 11–360 A
FE	0.05	---	0.15	13.90	14.00	14.10	8.10		6.00	6.10	6.20	64 11–360 A
FF	0.05	---	0.15	16.90	17.00	17.10	8.10		6.00	6.10	6.20	80 11–397 B
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5			2, 12 11

TABLE 5

TSSOP VARIATIONS – 0.40 PITCH BODY WIDTH (E1) = 8.00 NOM															
VARIATION	A1			D BASIC			E		E1			SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX				
JA	0.05	---	0.15	9.60	9.70	9.80	10.00		7.90	8.00	8.10	0.20	48	11-360	A
JB	0.05	---	0.15	10.90	11.00	11.10	10.00		7.90	8.00	8.10	0.20	52	11-360	A
JC	0.05	---	0.15	12.40	12.50	12.60	10.00		7.90	8.00	8.10	0.20	56	11-360	A
JC-1	0.05	---	0.15	12.40	12.50	12.60	10.00		7.90	8.00	8.10	0.20	60	11-441	C
JD	0.05	---	0.15	13.90	14.00	14.10	10.00		7.90	8.00	8.10	0.20	64	11-390	A
JD-1	0.05	---	0.15	13.90	14.00	14.10	10.00		7.90	8.00	8.10	0.20	68	11-441	C
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5			2, 12	11		

TABLE 6

TSSOP VARIATIONS – 0.50 PITCH BODY WIDTH (E1) = 4.40 NOM														
VARIATION	A1			D BASIC			E BASIC	E1			SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX		MIN	NOM	MAX				
BA	0.05	---	0.15	4.90	5.00	5.10	6.40	4.30	4.40	4.50	0.25	20	11-360	A
BB	0.05	---	0.15	6.40	6.50	6.60	6.40	4.30	4.40	4.50	0.25	24	11-360	A
BC	0.05	---	0.15	7.70	7.80	7.90	6.40	4.30	4.40	4.50	0.25	28	11-360	A
BC-1	0.05	---	0.15	7.70	7.80	7.90	6.40	4.30	4.40	4.50	0.25	30	11-491	E
BD	0.05	---	0.15	9.60	9.70	9.80	6.40	4.30	4.40	4.50	0.25	36	11-360	A
BD-1	0.05	---	0.15	9.60	9.70	9.80	6.40	4.30	4.40	4.50	0.00	38	11-491	E
BE	0.05	---	0.15	10.90	11.00	11.10	6.40	4.30	4.40	4.50	0.25	44	11-491	E
BF	0.05	---	0.15	12.40	12.50	12.60	6.40	4.30	4.40	4.50	0.25	50	11-491	E
NOTES	2			2, 3, 4, 5			2	2, 3, 4, 5			2, 12	11		

TABLE 7

TSSOP VARIATIONS – 0.50 PITCH BODY WIDTH (E1) = 6.10 NOM															
VARIATION	A1			D BASIC			E		E1			SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX				
EA	0.05	---	0.15	7.70	7.80	7.90	8.10		6.00	6.10	6.20	0.25	28	11-360	A
EB	0.05	---	0.15	9.60	9.70	9.80	8.10		6.00	6.10	6.20	0.25	36	11-360	A
EC	0.05	---	0.15	10.90	11.00	11.10	8.10		6.00	6.10	6.20	0.25	40	11-360	A
EC-1	0.05	---	0.15	10.90	11.00	11.10	8.10		6.00	6.10	6.20	0.25	44	11-360	A
ED	0.05	---	0.15	12.40	12.50	12.60	8.10		6.00	6.10	6.20	0.25	48	11-360	A
EE	0.05	---	0.15	13.90	14.00	14.10	8.10		6.00	6.10	6.20	0.25	56	11-360	A
EF	0.05	---	0.15	16.90	17.00	17.10	8.10		6.00	6.10	6.20	0.25	64	11-360	A
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5			2, 12	11		

TABLE 8

TSSOP VARIATIONS – 0.50 PITCH BODY WIDTH (E1) = 8.00 NOM															
VARIATION	A1			D BASIC			E	E1			SD BASIC	N	REF	ISSUE	
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC	MIN	NOM	MAX					
HA	0.05	---	0.15	9.60	9.70	9.80	10.00		7.90	8.00	8.10	0.25	36	11–360	A
HB	0.05	---	0.15	10.90	11.00	11.10	10.00		7.90	8.00	8.10	0.25	40	11–360	A
HC	0.05	---	0.15	12.40	12.50	12.60	10.00		7.90	8.00	8.10	0.25	48	11–360	A
HD	0.05	---	0.15	13.90	14.00	14.10	10.00		7.90	8.00	8.10	0.25	56	11–360	A
NOTES	2			2, 3, 4, 5			2	2, 3, 4, 5			2, 12	11			

TABLE 9

TSSOP VARIATIONS – 0.65 PITCH BODY WIDTH (E1) = 4.40 NOM															
VARIATION	A1			D BASIC			E		E1			SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX				
AA	0.05	---	0.15	2.90	3.00	3.10	6.40		4.30	4.40	4.50	0.325	8	11-360	A
AB	0.05	---	0.15	4.90	5.00	5.10	6.40		4.30	4.40	4.50	0.325	16	11-360	A
AB-1	0.05	---	0.15	4.90	5.00	5.10	6.40		4.30	4.40	4.50	0.000	14	11-360	A
AC	0.05	---	0.15	6.40	6.50	6.60	6.40		4.30	4.40	4.50	0.325	20	11-360	A
AD	0.05	---	0.15	7.70	7.80	7.90	6.40		4.30	4.40	4.50	0.325	24	11-360	A
AE	0.05	---	0.15	9.60	9.70	9.80	6.40		4.30	4.40	4.50	0.325	28	11-360	A
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5				11		

TABLE 10

TSSOP VARIATIONS – 0.65 PITCH BODY WIDTH (E1) = 6.10 NOM															
VARIATION	A1			D BASIC			E		E1			SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC		MIN	NOM	MAX				
DA	0.05	---	0.15	7.70	7.80	7.90	8.10		6.00	6.10	6.20	0.325	24	11-360	A
DB	0.05	---	0.15	9.60	9.70	9.80	8.10		6.00	6.10	6.20	0.325	28	11-360	A
DB-1	0.05	---	0.15	9.60	9.70	9.80	8.10		6.00	6.10	6.20	0.000	30	11-441	C
DC	0.05	---	0.15	10.90	11.00	11.10	8.10		6.00	6.10	6.20	0.325	32	11-360	A
DD	0.05	---	0.15	12.40	12.50	12.60	8.10		6.00	6.10	6.20	0.325	36	11-360	A
DD-1	0.05	---	0.15	12.40	12.50	12.60	8.10		6.00	6.10	6.20	0.000	38	11-491	E
DE	0.05	---	0.15	13.90	14.00	14.10	8.10		6.00	6.10	6.20	0.325	40	11-360	A
NOTES	2			2, 3, 4, 5			2		2, 3, 4, 5			2, 12	11		

TABLE 11

TSSOP VARIATIONS – 0.65 PITCH BODY WIDTH (E1) = 8.00 NOM															
VARIATION	A1			D BASIC			E	E1			SD BASIC	N	REF	ISSUE	
	MIN	NOM	MAX	MIN	NOM	MAX	BASIC	MIN	NOM	MAX					
GA	0.05	---	0.15	9.60	9.70	9.80	10.00		7.90	8.00	8.10	0.325	28	11–360	A
GB	0.05	---	0.15	10.90	11.00	11.10	10.00		7.90	8.00	8.10	0.325	32	11–360	A
GC	0.05	---	0.15	12.40	12.50	12.60	10.00		7.90	8.00	8.10	0.325	36	11–360	A
GD	0.05	---	0.15	13.90	14.00	14.10	10.00		7.90	8.00	8.10	0.325	40	11–360	A
NOTES	2			2, 3, 4, 5			2	2, 3, 4, 5			2, 12	11			

TABLE 12

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.40 PITCH														
BODY WIDTH (E1) = 4.40 NOM														
VARIATION	A1			D BASIC			D1		E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	MAX	BASIC		MIN	NOM	MAX	
CAT	0.05	---	0.15	4.90	5.00	5.10	1.70	1.70	6.40		4.30	4.40	4.50	24 11–360 A
CBT	0.05	---	0.15	6.40	6.50	6.60	2.20	2.20	6.40		4.30	4.40	4.50	32 11–360 A
CCT	0.05	---	0.15	7.70	7.80	7.90	2.70	2.70	6.40		4.30	4.40	4.50	36 11–360 A
CDT	0.05	---	0.15	9.60	9.70	9.80	3.30	3.30	6.40		4.30	4.40	4.50	48 11–360 A
NOTES	2, 13			2, 3, 4, 5			2, 10		2		2, 3, 4, 5			11

TABLE 13

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.40 PITCH														
BODY WIDTH (E1) = 6.10 NOM														
VARIATION	A1			D BASIC			D1		E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	MAX	BASIC		MIN	NOM	MAX	
FAT	0.05	---	0.15	7.70	7.80	7.90	2.70	2.70	8.10		6.00	6.10	6.20	36 11–360 A
FBT	0.05	---	0.15	9.60	9.70	9.80	3.30	3.30	8.10		6.00	6.10	6.20	48 11–360 A
FCT	0.05	---	0.15	10.90	11.00	11.10	3.80	3.80	8.10		6.00	6.10	6.20	52 11–360 A
FDT	0.05	---	0.15	12.40	12.50	12.60	4.30	4.30	8.10		6.00	6.10	6.20	56 11–360 A
FET	0.05	---	0.15	13.90	14.00	14.10	4.90	4.90	8.10		6.00	6.10	6.20	64 11–360 A
FFT	0.05	---	0.15	16.90	17.00	17.10	5.90	5.90	8.10		6.00	6.10	6.20	80 11–397 B
NOTES	2, 13			2, 3, 4, 5			2, 10		2		2, 3, 4, 5			11

TABLE 14

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.40 PITCH																		
BODY WIDTH (E1) = 8.00 NOM																		
VARIATION	A1			D BASIC			D1		E		E1			E2	SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	MAX	BASIC	MIN	NOM	MAX						
JAT	0.05	---	0.15	9.60	9.70	9.80	3.30	3.30	10.00	10.00	7.90	8.00	8.10	2.80	0.20	48	11–360	A
JBT	0.05	---	0.15	10.90	11.00	11.10	3.80	3.80	10.00	10.00	7.90	8.00	8.10	2.80	0.20	52	11–360	A
JCT	0.05	---	0.15	12.40	12.50	12.60	5.90	5.90	10.00	10.00	7.90	8.00	8.10	2.80	0.20	56	11–360	A
JCT–1	0.05	---	0.15	12.40	12.50	12.60	5.90	5.90	10.00	10.00	7.90	8.00	8.10	2.80	0.20	60	11–441	C
JDT	0.05	---	0.15	13.90	14.00	14.10	4.90	4.90	10.00	10.00	7.90	8.00	8.10	2.80	0.20	64	11–390	A
JDT–1	0.05	---	0.15	13.90	14.00	14.10	4.90	4.90	10.00	10.00	7.90	8.00	8.10	2.80	0.20	68	11–441	C
NOTES	2, 13			2, 3, 4, 5			2, 10		2		2, 3, 4, 5			2, 10		11		

TABLE 15

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.50 PITCH																	
BODY WIDTH (E1) = 4.40 NOM																	
VARIATION	A1			D			D1	E	E1			E2	SD BASIC	N	REF	ISSUE	
	MIN	NOM	MAX	MIN	NOM	MAX			MIN	NOM	MAX						
BAT	0.05	---	0.15	4.90	5.00	5.10	1.70	6.40	4.30	4.40	4.50	1.50	0.25	20	11-360	A	
BBT	0.05	---	0.15	6.40	6.50	6.60	2.20	6.40	4.30	4.40	4.50	1.50	0.25	24	11-360	A	
BCT	0.05	---	0.15	7.70	7.80	7.90	2.70	6.40	4.30	4.40	4.50	1.50	0.25	28	11-360	A	
BCT-1	0.05	---	0.15	7.70	7.80	7.90	2.70	6.40	4.30	4.40	4.50	1.50	0.00	30	11-491	E	
BDT	0.05	---	0.15	9.60	9.70	9.80	3.30	6.40	4.30	4.40	4.50	1.50	0.25	36	11-360	A	
BDT-1	0.05	---	0.15	9.60	9.70	9.80	3.30	6.40	4.30	4.40	4.50	1.50	0.00	38	11-491	E	
BET	0.05	---	0.15	10.90	11.00	11.10	3.80	6.40	4.30	4.40	4.50	1.50	0.25	44	11-491	E	
BFT	0.05	---	0.15	12.40	12.50	12.60	4.30	6.40	4.30	4.40	4.50	1.50	0.00	50	11-491	E	
NOTES	2, 13			2, 3, 4, 5			2, 10		2		2, 3, 4, 5			2, 10		2, 12	11

TABLE 16

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.50 PITCH													
BODY WIDTH (E1) = 6.10 NOM													
VARIATION	A1			D			D1	E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX		BASIC		MIN	NOM	MAX	
EAT	0.05	---	0.15	7.70	7.80	7.90	2.70	8.10		6.00	6.10	6.20	28
EBT	0.05	---	0.15	9.60	9.70	9.80	3.30	8.10		6.00	6.10	6.20	36
ECT	0.05	---	0.15	10.90	11.00	11.10	3.80	8.10		6.00	6.10	6.20	40
ECT-1	0.05	---	0.15	10.90	11.00	11.10	3.80	8.10		6.00	6.10	6.20	44
EDT	0.05	---	0.15	12.40	12.50	12.60	4.30	8.10		6.00	6.10	6.20	48
EET	0.05	---	0.15	13.90	14.00	14.10	4.90	8.10		6.00	6.10	6.20	56
EFT	0.05	---	0.15	16.90	17.00	17.10	5.90	8.10		6.00	6.10	6.20	64
NOTES	2, 13			2, 3, 4, 5			2, 10	2		2, 3, 4, 5			11

TABLE 17

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.50 PITCH													
BODY WIDTH (E1) = 8.00 NOM													
VARIATION	A1			D BASIC			D1	E		E1			ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX		BASIC		MIN	NOM	MAX	
HAT	0.05	---	0.15	9.60	9.70	9.80	3.30	10.00		7.90	8.00	8.10	36
HBT	0.05	---	0.15	10.90	11.00	11.10	3.80	10.00		7.90	8.00	8.10	40
HCT	0.05	---	0.15	12.40	12.50	12.60	5.90	10.00		7.90	8.00	8.10	48
HDT	0.05	---	0.15	13.90	14.00	14.10	4.90	10.00		7.90	8.00	8.10	56
NOTES	2, 13			2, 3, 4, 5			2, 10	2		2, 3, 4, 5			11

TABLE 18

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.65 PITCH BODY WIDTH (E1) = 4.40 NOM														
VARIATION	A1			D BASIC			D1		E		E1			E2
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	MAX	BASIC		MIN	NOM	MAX	
AAT	0.00	---	0.15	2.90	3.00	3.10	1.00	1.00	6.40		4.30	4.40	4.50	1.50
ABT	0.00	---	0.15	4.90	5.00	5.10	1.70	1.70	6.40		4.30	4.40	4.50	1.50
ABT-1	0.00	---	0.15	4.90	5.00	5.10	1.70	1.70	6.40		4.30	4.40	4.50	1.50
ACT	0.00	---	0.15	6.40	6.50	6.60	2.20	2.20	6.40		4.30	4.40	4.50	1.50
ADT	0.00	---	0.15	7.70	7.80	7.90	2.70	2.70	6.40		4.30	4.40	4.50	1.50
AET	0.00	---	0.15	9.60	9.70	9.80	3.30	3.30	6.40		4.30	4.40	4.50	1.50
NOTES	2, 13			2, 3, 4, 5			2, 10		2		2, 3, 4, 5			2, 10

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.65 PITCH																		
BODY WIDTH (E1) = 6.10 NOM																		
VARIATION	A1			D BASIC			D1		E		E1			E2	SD BASIC	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	MAX	BASIC	MIN	NOM	MAX	MIN					
DAT	0.00	---	0.15	7.70	7.80	7.90	2.70	2.70	8.10	6.00	6.10	6.20	2.10	0.325	24	11-360	A	
DBT	0.00	---	0.15	9.60	9.70	9.80	3.30	3.30	8.10	6.00	6.10	6.20	2.10	0.325	28	11-360	A	
DBT-1	0.00	---	0.15	9.60	9.70	9.80	3.30	3.30	8.10	6.00	6.10	6.20	2.10	0.000	30	11-441	C	
DCT	0.00	---	0.15	10.90	11.00	11.10	3.80	3.80	8.10	6.00	6.10	6.20	2.10	0.325	32	11-360	A	
DDT	0.00	---	0.15	12.40	12.50	12.60	4.30	4.30	8.10	6.00	6.10	6.20	2.10	0.325	36	11-360	A	
DDT-1	0.00	---	0.15	12.40	12.50	12.60	4.30	4.30	8.10	6.00	6.10	6.20	2.10	0.000	38	11-491	E	
DET	0.00	---	0.15	13.90	14.00	14.10	4.90	4.90	8.10	6.00	6.10	6.20	2.10	0.325	40	11-360	A	
NOTES	2, 13		2, 3, 4, 5			2, 10		2		2, 3, 4, 5			2, 10		2, 12		11	

HTSSOP THERMALLY ENHANCED VARIATIONS – 0.65 PITCH																
BODY WIDTH (E1) = 8.00 NOM																
VARIATION	A1			D BASIC			D1	E	E1			E2	SD	N	REF	ISSUE
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	BASIC	MIN	NOM	MAX	MIN	BASIC			
GAT	0.00	----	0.15	9.60	9.70	9.80	3.30	10.00	7.90	8.00	8.10	2.80	0.325	28	11–360	A
GBT	0.00	----	0.15	10.90	11.00	11.10	4.90	10.00	7.90	8.00	8.10	2.80	0.325	32	11–360	A
GCT	0.00	----	0.15	12.40	12.50	12.60	4.30	10.00	7.90	8.00	8.10	2.80	0.325	36	11–360	A
GDT	0.00	----	0.15	13.90	14.00	14.10	4.90	10.00	7.90	8.00	8.10	2.80	0.325	40	11–360	A
NOTES	2, 13			2, 3, 4, 5			2, 10	2	2, 3, 4, 5			2, 10	2, 12	11		

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5–2009.
THIS OUTLINE CONFORMS TO JEP95, SECTION 4.14.

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 INTERTERMINAL FLASH OR PROTRUSION. INTERTERMINAL
FLASH OR PROTRUSION SHALL NOT EXCEED 0.25 mm PER SIDE.



DIMENSIONS D AND E1 ARE DETERMINED AT THE OUTER MOST EXTREMES OF THE
PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND
INTERTERMINAL FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM
OF THE PLASTIC BODY.



DATUMS A AND B AND DIMENSIONS D AND E1 TO BE DETERMINED AT DATUM PLANE H.



TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.



THE DIMENSIONS APPLY TO THE FLAT SECTION OF THE TERMINAL BETWEEN 0.10 mm
TO 0.25 mm FROM THE TERMINAL TIP.



DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR
PROTRUSION SHALL BE 0.10 mm TOTAL IN EXCESS OF THE b DIMENSION AT
MAXIMUM MATERIAL CONDITION. THE DAMBAR CANNOT BE LOCATED ON THE LOWER
RADIUS OF THE FOOT.



DETAILS OF THE PIN 1 INDEX ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE
INDICATED. THE SIZE OF THE ZONE IS 0.25 X D BY 0.75 X E1.



THERMALLY ENHANCED VARIATIONS ARE DESIGNATED WITH T SUFFIX ADDED TO THE
VARIATION. D1 AND E2 MINIMUM DIMENSIONS OF THERMALLY ENHANCED TYPES ARE
VARIABLES DEPENDING ON DEVICE FUNCTION (DIE PADDLE SIZE). D1 AND E2 MAXIMUM
DIMENSIONS CAN BE EQUAL TO D/E1 MAXIMUM DIMENSIONS. END USER SHOULD VERIFY
ACTUAL SIZE OF EXPOSED THERMAL PAD FOR SPECIFIC DEVICE APPLICATION.

11. N IS THE MAXIMUM NUMBER OF TERMINAL POSITIONS FOR THE SPECIFIED PACKAGE
LENGTH. DEPOPULATION IS ALLOWED, BUT UNDER THE FOLLOWING CONDITIONS:
1) DEPOPULATION MAY REDUCE N BY INCREMENTS OF FOUR (4) LEADS ONLY.
2) ONLY END LEADS MAY BE REMOVED.
3) LEADS MUST BE SYmmETRICALLY ARRANGED WITH RESPECT TO DATUM A TO AVOID
ANY ARRAY SHIFTING.



DIMENSION SD IS MEASURED WITH RESPECT TO DATUM A AND DEFINES THE
POSITION OF THE CENTER TERMINAL.
WHEN THERE IS AN ODD NUMBER OF TERMINALS PER SIDE, $SD = 0$
WHEN THERE IS AN EVEN NUMBER OF TERMINALS PER SIDE, $SD = e/2$.

13. DIMENSION A1 IS DEFINED AS THE VERTICAL DISTANCE FROM THE SEATING PLANE TO THE LOWEST POINT ON THE PACKAGE BODY EXCLUDING THE LID AND OR THERMAL ENHANCEMENT ON CAVITY DOWN CONFIGURATIONS.

APPLICATION NOTES:



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

CHANGE RECORD

IF THE CHANGE INVOLVES ANY WORDS ADDED OR DELETED (EXCLUDING DELETION OF ACCIDENTALLY REPEATED WORDS), THE CHANGE IS TO BE INCLUDED BELOW. PUNCTUATION CHANGES MAY OR MAY NOT BE INCLUDED.

INITIAL ISSUE: A	DATE: JULY 1993	JC11 ITEM NUMBER: 11-360
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CHANGE RECORD HISTORY:

ISSUE: B	DATE: MARCH 1995	ITEM NUMBER: 11-397
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ISSUE: C	DATE: JANUARY 1996	ITEM NUMBER: 11-441
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ISSUE: D	DATE: APRIL 1997	ITEM NUMBER: 11-465
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ISSUE: E	DATE: NOVEMBER 1997	ITEM NUMBER: 11-491
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ISSUE: F	DATE: MAY 2001	ITEM NUMBER: 11-603
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ISSUE: G	DATE: JAN 2018	ITEM NUMBER: 11-950
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LOCATION:	CHANGED FROM:	CHANGED TO:
		REDRAWN AND UPDATED TO CURRENT STANDARDS
SHEET 3, TABLE 1, 0.65 PITCH	b MIN = 0.19 b1 MIN = 0.19 b1 NOM = 0.22	b MIN = 0.17 b1 MIN = 0.17 b1 NOM = 0.21
		DELETED: SUMMARY TABLE – VARIATIONS