

JEDEC
SOLID STATE
PRODUCT OUTLINES

THIS STANDARD OUTLINE HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ACCEPTANCE IN THE ELECTRONICS INDUSTRY; CHANGES ARE NOT LIKELY TO OCCUR.

| | | | | | |
|---|---|------------|---------------|--------|-----------------|
| VERY THICK PROFILE, PLASTIC SMALL OUTLINE FAMILY, 1.27 mm PITCH, 7.50 mm BODY WIDTH | PACKAGE DESIGNATOR B1R-PDSO/SOP/SOIC | ISSUE E | DATE SEP05 | MS-013 | SHEET 1 OF 5 |
|---|---|------------|---------------|--------|-----------------|

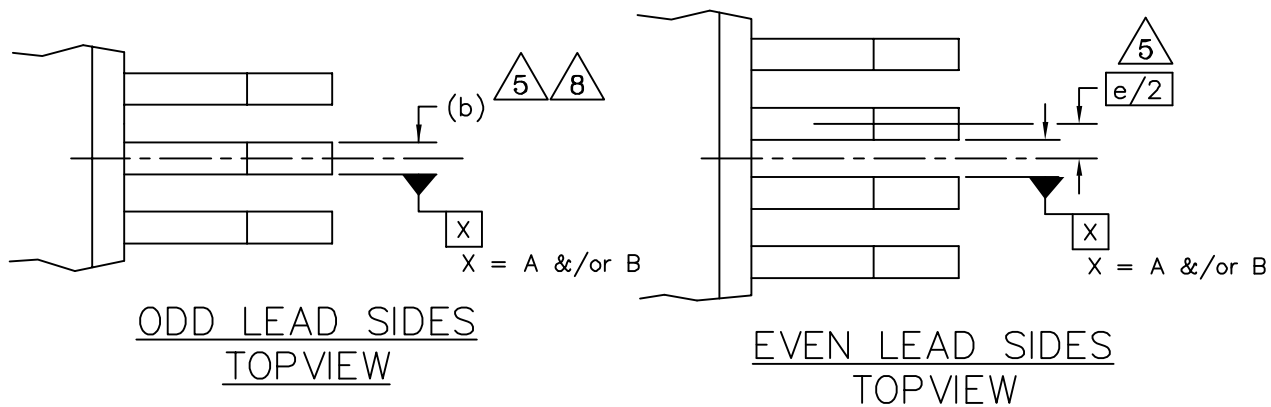
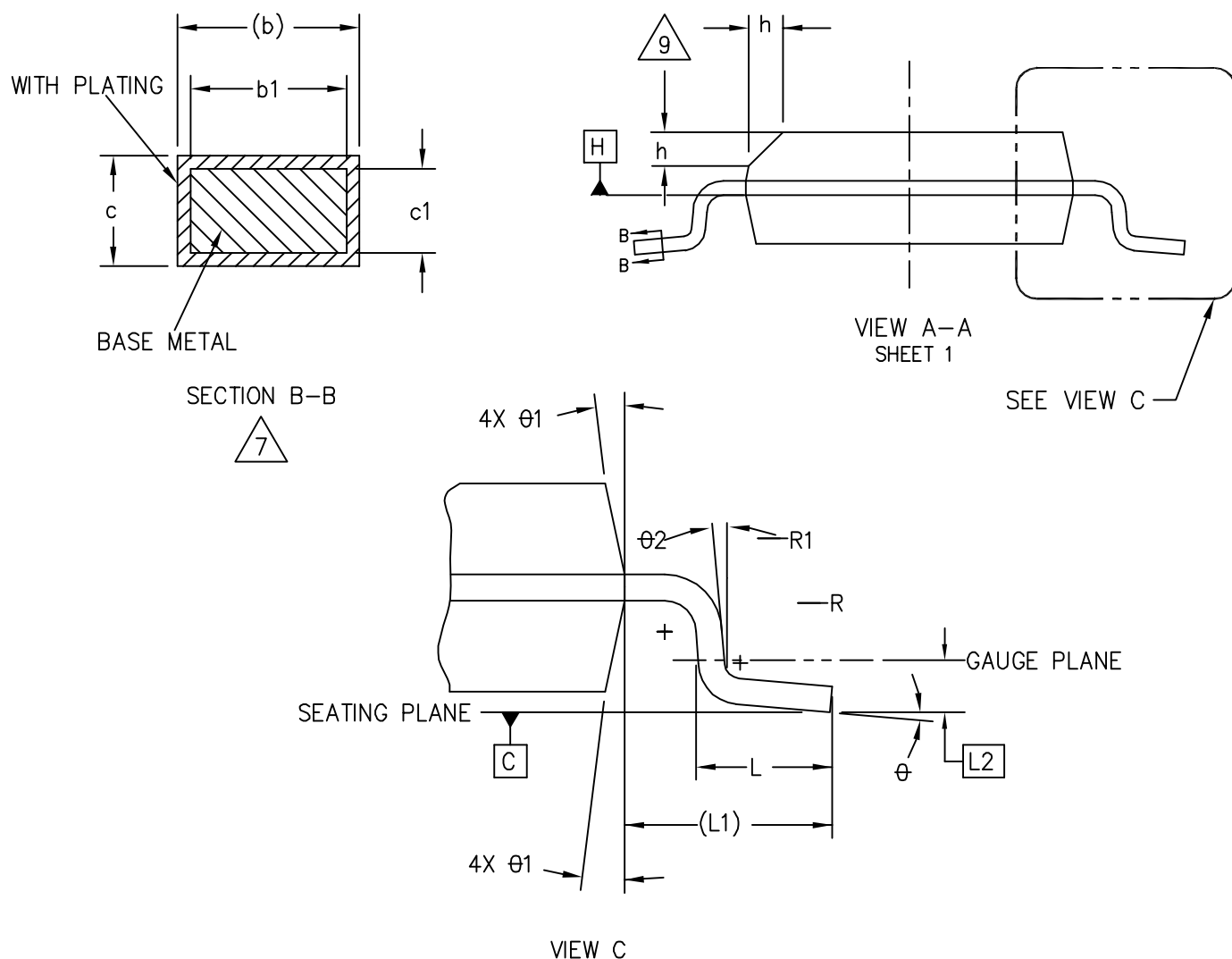


FIGURE 2

| | | | | | |
|--|---|------------|---------------|--------|-----------------|
| JEDEC SOLID STATE PRODUCT OUTLINES | TITLE VERY THICK PROFILE, PLASTIC SMALL OUTLINE FAMILY, 1.27 mm PITCH, 7.50 mm BODY WIDTH | ISSUE E | DATE SEP05 | MS-013 | SHEET 2 OF 5 |
|--|---|------------|---------------|--------|-----------------|

| SYMBOL | COMMON DIMENSIONS | | | NOTE |
|--------|-------------------|-----|------|------|
| | MIN | NOM | MAX | |
| A2 | 2.05 | — | — | |
| b | 0.31 | — | 0.51 | 7,8 |
| b1 | 0.27 | — | 0.48 | 7,8 |
| c | 0.20 | — | 0.33 | 7 |
| c1 | 0.20 | — | 0.30 | 7 |
| E | 10.30 BSC | | | |
| E1 | 7.50 BSC | | | 3,4 |
| e | 1.27 BSC | | | |
| L | 0.40 | — | 1.27 | |
| L1 | 1.40 REF | | | |
| L2 | 0.25 BSC | | | |
| R | 0.07 | — | — | |
| R1 | 0.07 | — | — | |
| h | 0.25 | — | 0.75 | 9 |
| θ | 0° | — | 8° | |
| θ1 | 5° | — | 15° | |
| θ2 | 0° | — | — | |
| NOTE | 1,2 | | | |
| REF | 11–720S | | | |
| ISSUE | E | | | |

| SYMBOL | TOLERANCES OF FORM AND POSITION | NOTE |
|--------|---------------------------------|------|
| aaa | 0.10 | |
| bbb | 0.33 | |
| ccc | 0.10 | |
| ddd | 0.25 | |
| eee | 0.10 | |
| fff | 0.20 | |
| ggg | 0.15 | |
| NOTE | 1,2 | |
| REF | 11–720S | |
| ISSUE | E | |

VARIATION TABLES

STANDARD

| VARIATION ► SYMBOL ▼ | | AA | AB | AC | AD | AE | AF | NOTE |
|-------------------------|-----|---------|-------|-------|-------|-------|------|------|
| A | MIN | --- | | | | | | |
| | NOM | --- | | | | | | |
| | MAX | 2.65 | | | | | | |
| A1 | MIN | 0.10 | | | | | | 10 |
| | NOM | --- | | | | | | |
| | MAX | 0.30 | | | | | | |
| D BSC | | 10.30 | 11.55 | 12.80 | 15.40 | 17.90 | 9.00 | 3,4 |
| N | | 16 | 18 | 20 | 24 | 28 | 14 | 6 |
| NOTE | | | | | | | | |
| REF | | 11-720S | | | | | | |
| ISSUE | | E | | | | | | |

THERMAL

| VARIATION ► | | BA | BB | BC | BD | BE | BF | NOTE |
|-------------|-----|----------|-------|-------|-------|-------|------|------|
| SYMBOL ▼ | | | | | | | | |
| A | MIN | --- | | | | | | |
| | NOM | --- | | | | | | |
| | MAX | 2.50 | | | | | | |
| A1 | MIN | 0.00 | | | | | | 10 |
| | NOM | --- | | | | | | |
| | MAX | 0.15 | | | | | | |
| D BSC | | 10.30 | 11.55 | 12.80 | 15.40 | 17.90 | 9.00 | 3,4 |
| D1 | MIN | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 11 |
| | NOM | ---- | ---- | ---- | ---- | ---- | ---- | |
| | MAX | ---- | ---- | ---- | ---- | ---- | ---- | |
| E2 | MIN | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 11 |
| | NOM | ---- | ---- | ---- | ---- | ---- | ---- | |
| | MAX | ---- | ---- | ---- | ---- | ---- | ---- | |
| N | | 16 | 18 | 20 | 24 | 28 | 14 | 6 |
| NOTE | | | | | | | | |
| REF | | 11— 720S | | | | | | |
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| JEDEC SOLID STATE PRODUCT OUTLINES | TITLE VERY THICK PROFILE, PLASTIC SMALL OUTLINE FAMILY, 1.27 mm PITCH, 7.50 mm BODY WIDTH | ISSUE E | DATE SEP05 | MS–013 | SHEET 3 OF 5 |
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NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

2. DIMENSIONS IN MILLIMETERS (ANGLES IN DEGREES)



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 0.25 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.



DATUMS A & B TO BE DETERMINED AT DATUM H.

6 "N" IS THE MAXIMUM NUMBER OF TERMINAL POSITIONS FOR THE SPECIFIED PACKAGE LENGTH.



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



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



THIS CHAMFER FEATURE IS OPTIONAL. IF IT IS NOT PRESENT, THEN A PIN 1 IDENTIFIER MUST BE LOCATED WITHIN THE INDEX AREA INDICATED



'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 PACKAGE CONFIGURATIONS.



'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' AND 'E1' MAXIMUM DIMENSIONS. END USER SHOULD VERIFY ACTUAL SIZE OF EXPOSED THERMAL PAD FOR SPECIFIC DEVICE APPLICATION.

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Change Record

If the change involves any words added or deleted (excluding deletion of accidentally repeated words), the change is included. Punctuation changes may or may not be included.

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| Initial Issue: | Date: | Item: |
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Revision History

| | | |
|--------------------------|--------------------------------|---------------------------------|
| Issue: E | Date: SEP05 | Item: 11.11-720S |
| Location | Changed from: | Changed to: |
| Page 3, Variation Tables | 6-Non Thermal Options AA to AF | Add 6- Thermal Options BA to BF |
| Page 1, Bottom View | Top View, Side View | Add Bottom View to show Exposed |
| | | Thermal Pad Zone |
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| Location | Changed from: | Changed to: |
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