

FIGURE 1

ALL DIMENSIONS IN MILLIMETERS

| | | | | | | |
|---|-------------------------------------|---|-------|-------|--------|--------|
| JEDEC SOLID STATE PRODUCT OUTLINE | | 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. | | | | |
| TITLE | PLASTIC CHIP CARRIER TUBE FAMILY | PACKAGE DESIGNATOR | ISSUE | DATE | | SHEET |
| | | | A | 08/98 | C0-033 | 1 OF 3 |

| S Y M B O L | SQUARE VARIATIONS | | | | | | | | |
|----------------------------|----------------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
| | AA | | | AB | | | AC | | |
| | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. |
| A | 10.65 | 10.90 | 11.15 | 13.20 | 13.45 | 13.70 | 18.30 | 18.55 | 18.80 |
| B | 5.05 | 5.30 | 5.55 | 5.05 | 5.30 | 5.55 | 5.05 | 5.30 | 5.55 |
| n | 20 | | | 28 | | | 44 | | |
| N | 46 | | | 37 | | | 26 | | |
| R | 0.25 | — | 1.25 | 0.25 | — | 1.25 | 0.25 | — | 1.25 |
| W | 0.50 | 0.65 | 0.80 | 0.50 | 0.65 | 0.80 | 0.50 | 0.65 | 0.80 |
| NOTES: | 1, 2, 3 AND 9 | | | 1, 2, 3 AND 9 | | | 1, 2, 3 AND 9 | | |
| REF.: | 11.5-501 | | | 11.5-501 | | | 11.5-501 | | |
| JEDEC PKG STD | MS-018 | | | MS-018 | | | MS-018 | | |
| ISSUE | A | | | A | | | A | | |

| S Y M B O L | | | | | | | | | |
|----------------------------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
| | AD | | | AE | | | AF | | |
| | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. |
| A | 20.85 | 21.10 | 21.35 | 25.90 | 26.15 | 26.40 | 31.00 | 31.25 | 31.50 |
| B | 5.05 | 5.30 | 5.55 | 5.05 | 5.30 | 5.55 | 5.05 | 5.30 | 5.55 |
| n | 52 | | | 68 | | | 84 | | |
| N | 23 | | | 18 | | | 15 | | |
| R | 0.25 | — | 1.25 | 0.25 | — | 1.25 | 0.25 | — | 1.25 |
| W | 0.50 | 0.65 | 0.80 | 0.75 | 0.90 | 1.05 | 0.75 | 0.90 | 1.05 |
| NOTES: | 1, 2, 3 AND 9 | | | 1, 2, 3 AND 9 | | | 1, 2, 3 AND 9 | | |
| REF.: | 11.5-501 | | | 11.5-501 | | | 11.5-501 | | |
| JEDEC PKG STD | MS-018 | | | MS-018 | | | MS-018 | | |
| ISSUE | A | | | A | | | A | | |

| S Y M B O L | RECTANGULAR VARIATIONS | | | | | | | | |
|----------------------------|---------------------------|-------|-------|------|------|------|------|------|------|
| | BA | | | BB | | | BC | | |
| | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. |
| A | 13.20 | 13.45 | 13.70 | | | | | | |
| B | 4.05 | 4.30 | 4.55 | | | | | | |
| n | 32 | | | | | | | | |
| N | 30 | | | | | | | | |
| R | 0.25 | — | 1.25 | | | | | | |
| W | 0.50 | 0.65 | 0.80 | | | | | | |
| NOTES: | 1, 2, 3 AND 9 | | | | | | | | |
| REF.: | 11.5-501 | | | | | | | | |
| JEDEC PKG STD | MS-016 | | | | | | | | |
| ISSUE | A | | | | | | | | |

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|---|---|------------|---------------|--------|-----------------|
| JEDEC SOLID STATE PRODUCT OUTLINE | TITLE PLASTIC CHIP CARRIER TUBE FAMILY | ISSUE A | DATE 08/98 | C0-033 | SHEET 2 OF 3 |
|---|---|------------|---------------|--------|-----------------|

NOTES:

1. n= PACKAGE PIN COUNT SUPPORTED.
2. INTERPRET DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994.
3. N= MAXIMUM PACKAGE COUNT PER TUBE.
4. TUBE MARKINGS WILL HAVE CHARACTER HEIGHT BETWEEN 1.7 mm AND 3.2mm. ON THE TOP SURFACE PARALLEL TO DIMENSION "A".
5. TUBE WILL BE MARKED WITH WORD "ANTI-STATIC" OR "CONDUCTIVE" AS APPLICABLE.
6. TUBE WILL BE MARKED WITH PLASTIC RECYCLE SYMBOL AND APPLICABLE CODE NUMBER.
7. TUBE WILL BE MARKED WITH MANUFACTURER OF TUBE.
8. MARKING COLOR WILL BE RED ON CLEAR TUBES AND WHITE ON BLACK TUBES UNLESS OTHERWISE INSTRUCTED BY CUSTOMER.
9. PACKAGES WILL BE ORIENTED IN THE TUBE AS DEFINED IN FIGURE 2 (SEE BELOW). WHEN PLCC ARE IN THE TUBES AND VIEWED FROM THE TOP THE PACKAGE PIN # 1 INDICATOR WILL BE TO THE LEFT FOR RECTANGULAR PACKAGES AND TO THE TOP FOR SQUARE PACKAGES AND THE PLCC PACKAGE MARKING SHALL BE RIGHT SIDE UP AND READABLE LEFT TO RIGHT.
10. TUBE DESIGN MAY INCLUDE A CHAMFER FOR POSITIVE ORIENTATION OF PACKAGE IN TUBE (FIGURE 3).

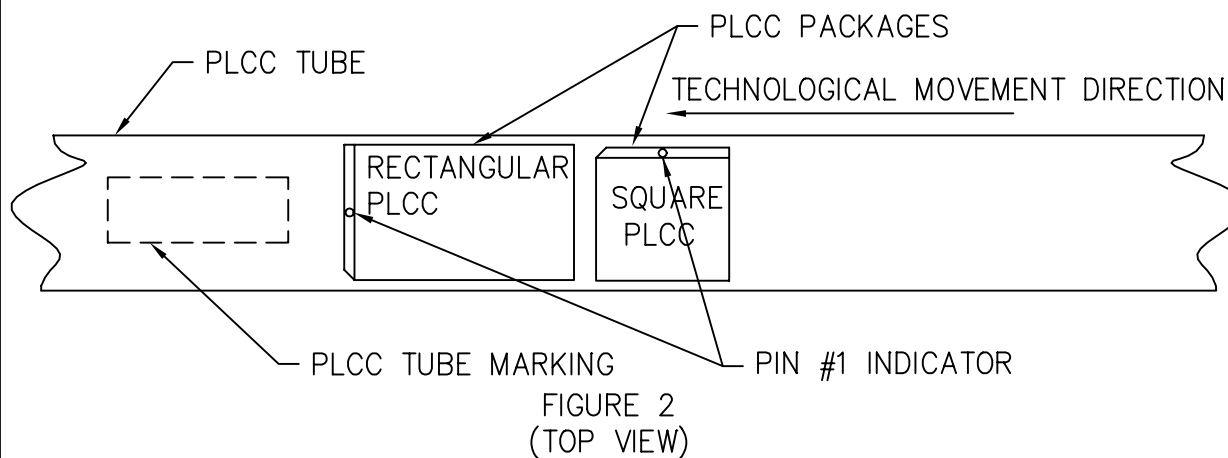


FIGURE 2
(TOP VIEW)

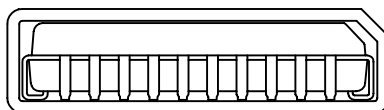


FIGURE 3
(END VIEW)

| | | | | | |
|---|---|------------|---------------|--------|-----------------|
| JEDEC SOLID STATE PRODUCT OUTLINE | TITLE PLASTIC CHIP CARRIER TUBE FAMILY | ISSUE A | DATE 08/98 | CO-033 | SHEET 3 OF 3 |
|---|---|------------|---------------|--------|-----------------|