



Please note that Cypress is an Infineon Technologies Company.

The document following this cover page is marked as “Cypress” document as this is the company that originally developed the product. Please note that Infineon will continue to offer the product to new and existing customers as part of the Infineon product portfolio.

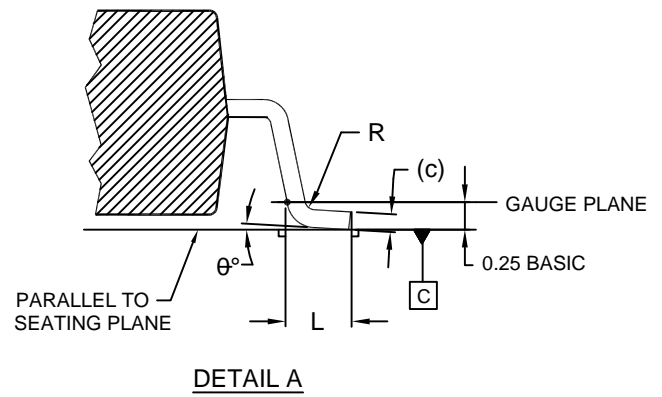
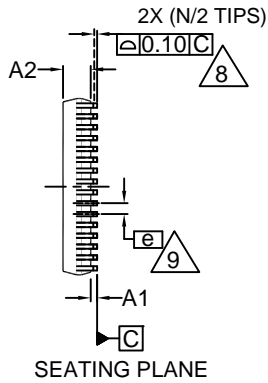
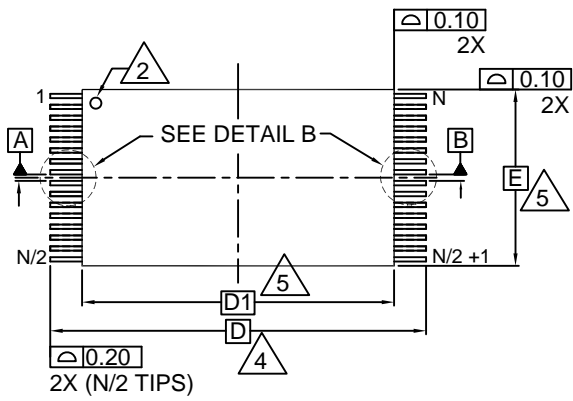
Continuity of document content

The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

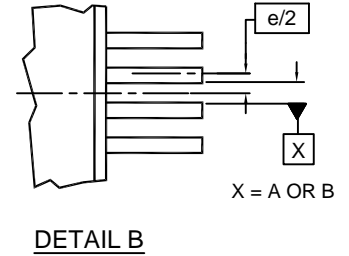
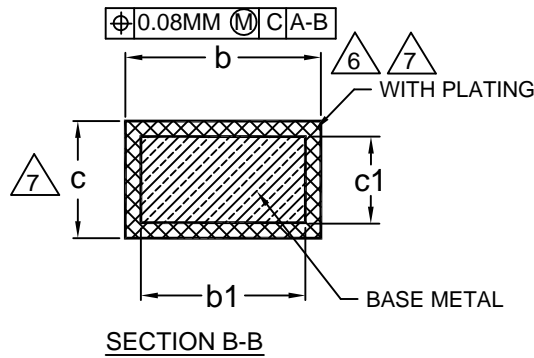
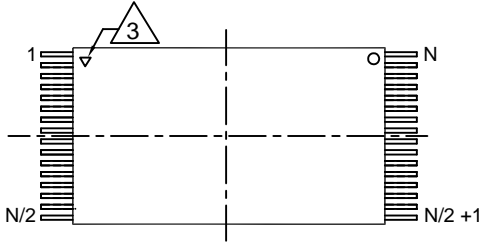
Continuity of ordering part numbers

Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

STANDARD PIN OUT (TOP VIEW)



REVERSE PIN OUT (TOP VIEW)

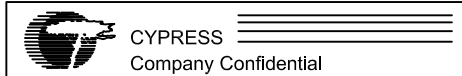


SYMBOL	DIMENSIONS		
	MIN.	NOM.	MAX.
A	—	—	1.20
A1	0.05	—	0.15
A2	0.95	1.00	1.05
b1	0.17	0.20	0.23
b	0.17	0.22	0.27
c1	0.10	—	0.16
c	0.10	—	0.21
D	20.00 BASIC		
D1	18.40 BASIC		
E	12.00 BASIC		
e	0.50 BASIC		
L	0.50	0.60	0.70
θ	0°	—	8
R	0.08	—	0.20
N	48		

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS (mm).
2. PIN 1 IDENTIFIER FOR STANDARD PIN OUT (DIE UP).
3. PIN 1 IDENTIFIER FOR REVERSE PIN OUT (DIE DOWN): INK OR LASER MARK.
4. TO BE DETERMINED AT THE SEATING PLANE [-C-]. THE SEATING PLANE IS DEFINED AS THE PLANE OF CONTACT THAT IS MADE WHEN THE PACKAGE LEADS ARE ALLOWED TO REST FREELY ON A FLAT HORIZONTAL SURFACE.
5. DIMENSIONS D1 AND E DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE MOLD PROTRUSION ON E IS 0.15mm PER SIDE AND ON D1 IS 0.25mm PER SIDE.
6. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08mm TOTAL IN EXCESS OF b DIMENSION AT MAX. MATERIAL CONDITION. DAMBAR CANNOT BE LOCATED ON LOWER RADIUS OR THE FOOT. MINIMUM SPACE BETWEEN PROTRUSION AND AN ADJACENT LEAD TO BE 0.07mm.
7. THESE DIMENSIONS APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.10mm AND 0.25mm FROM THE LEAD TIP.
8. LEAD COPLANARITY SHALL BE WITHIN 0.10mm AS MEASURED FROM THE SEATING PLANE.
9. DIMENSION "e" IS MEASURED AT THE CENTERLINE OF THE LEADS.
10. JEDEC SPECIFICATION NO. REF: MO-142(D)DD.

REVISIONS			
Rev	ECN No.	Orig. of change	Reason for Revision
**	125496	N/A	NEW RELEASE
*A	128493	N/A	CHANGE PART #/ ADD JEDEC #
*B	2808704	N/A	Changed Template and Title from 48LD TSOP I (12x18.4x1.0MM) PKG. OUTL. to PACKAGE OUTLINE, 48LD TSOP I 12X18.4X1.0 MM Z48A.
*C	3278498	N/A	NO CHANGE. SUNSET REVIEW.
*D	4600939	ROWI	SUNSET REVIEW, CHANGED DRAWING TEMPLATE.
*E	5464263	KOTA	Changed to new POD format.
*F	5529493	KOTA	UPDATED PACKAGE CODES. CORRECTED DIMENSION "14.0" TO "12.0" IN DRAWING TITLE. ADDED PACKAGE CODE "TS2048 AND TS4048" INTO DRAWING TITLE.



TITLE		PACKAGE OUTLINE, 48 LEAD TSOP	
SPEC NO.		51-85183	
SCALE : TO FIT		SHEET 2 OF 2	

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PACKAGE CODE(S)	TS048	TS2048	ZT48A
	TSR048	TS4048	

DRAWN BY	DATE
KOTA	22-NOV-16
APPROVED BY	DATE
BESY	22-NOV-16

REV *F