

1.0 Introduction

MACOM supplies integrated circuits, diodes, and related surface mount components in tape wound on standard 7-inch and 13-inch diameter reels. This application note documents the reel and tape dimensions and the orientation of the components within the tape cavities for many of our most popular package styles.

Packages Covered in This Application Note:

Package Type	Package Type
1 mm X1DFN-6LD	5 mm QFN-6LD
1.2 x 1.5 mm TDFN-6LD (0.5 mm pitch)	5 mm AQFN-12LD
1.5 x 1.2 mm TDFN-6LD (0.4 mm pitch)	5 mm PQFN-20LD
2 mm PDFN-8LD	5 mm PQFN-28LD
2 mm STDFN-8LD	5 mm PQFN-32LD
2 mm STQFN-12LD	5 x 6 mm PQFN-32LD
2 x 2.5 mm STQFN-14LD	5 x 7 mm PQFN-40LD
3 mm PQFN-12LD	6 x 5 mm PDFN-8LD
3 mm PQFN-12LD (1.1 mm Height)	6 x 6 mm PQFN-18LD
3 mm PQFN-16LD	6 x 6 mm PQFN-20LD
3 x 4 mm PQFN-22LD	6.5 x 6.5 mm AQFN-40LD
3 x 5 mm PQFN-24LD	6 x 7 mm PQFN-37LD
3 x 6 mm PDFN-14LD	7 mm LGA-16
4 mm PQFN-16LD	7 x 7 mm PQFN-44LD
4 mm PQFN-20LD	7 x 7 mm AQFN-48LD
4 mm PQFN-24LD	8 mm BGA
4 x 6 mm PQFN-32LD	15 mm BGA
4 x 7 mm PQFN-36LD	

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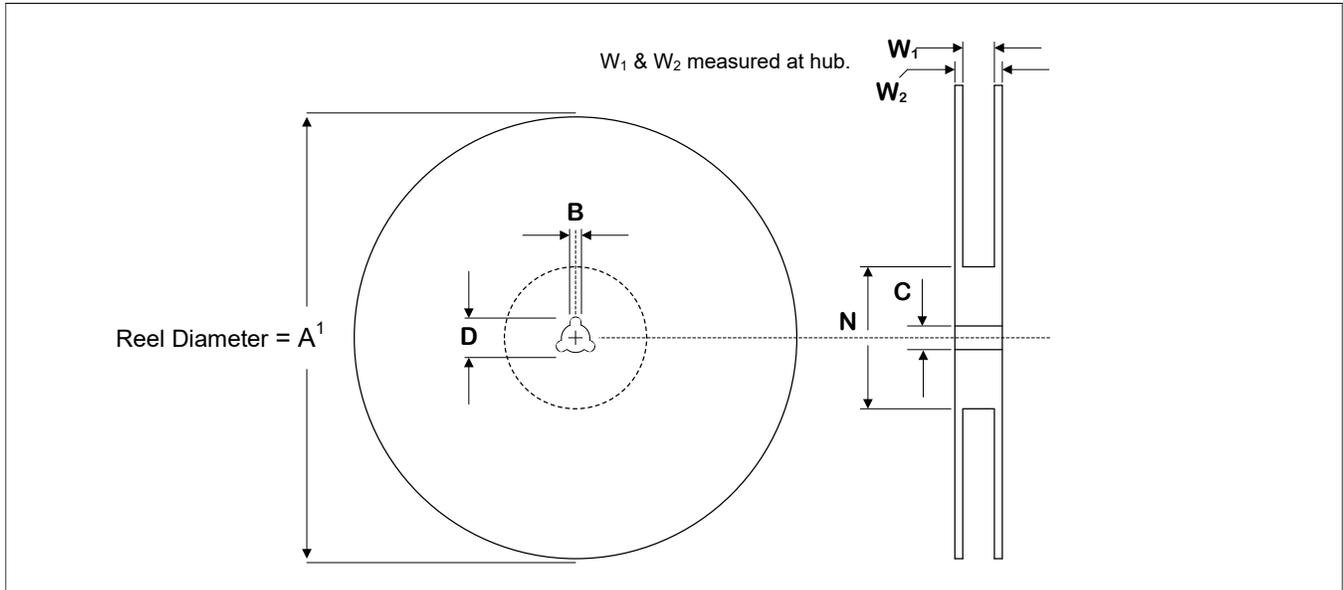
Packages Covered in This Application Note (cont.):

Package Type	Package Type
BD-1, BD-2, BD-3 (Bumped Die)	QSOP-16, QSOP-16EP
CR-5	QSOP-24
LCC1	QSOP-28
LSM1	R-1, R-4, R-5, R-15
LSM2	SC70-3LD
LSM3	SC70-6LD
LSM6	SC-79
MSOP-8, MSOP-8EP	SM-1
MSOP-10	SM-2
ODS-120 (ceramic)	SM-3
ODS-186 (ceramic)	SM-4 (same as SM-2)
ODS-1056 (ceramic)	SM-7-1
ODS-1072 (MELF)	SM-20
ODS-1079 (MELF)	SM-22
ODS-1091 (MELF)	SM-23 (same as SM-1)
ODS-1269 (GaAs flip-chip)	SM-24
ODS-1294 (surmount)	SM-26
ODS-1295 (surmount)	SM-28
ODS-1305 (GaAs flip-chip)	SM-41
ODS-1306 (surmount)	SM-44
ODS-1402 (GaAs flip-chip)	SM-46
ODS-1411 (GaAs flip-chip)	SM-52
ODS-1500 (GaAs flip-chip)	SM-55

Packages Covered in This Application Note (cont.):

Package Type	Package Type
SM-68 (same as SM-44)	SOT-23
SM-69 (same as SM-1)	SOT-25 (same as SOT-23 (5LD))
SM-74 (same as SM-2)	SOT-26 (same as SOT-23 (6LD))
SM-87 (same as SM-1)	SOT-89
SM-89 (same as SM-1)	SOT-143
SM-106	SOW-16 (same as SOIC-16 Wide Body)
SM-108 (same as SM-2)	SOW-24 (same as SOIC-24 Wide Body)
SM-134 (same as SM-1)	SSOP-8
SOD-323	SSOP-20
SOIC-8	SSOP-24
SOIC-14	SSOP-28
SOIC-16	TSSOP-16, TSSOP-16EP
SOIC-16 Wide Body	
SOIC-24 Wide Body	

2.0 Reel Dimensions

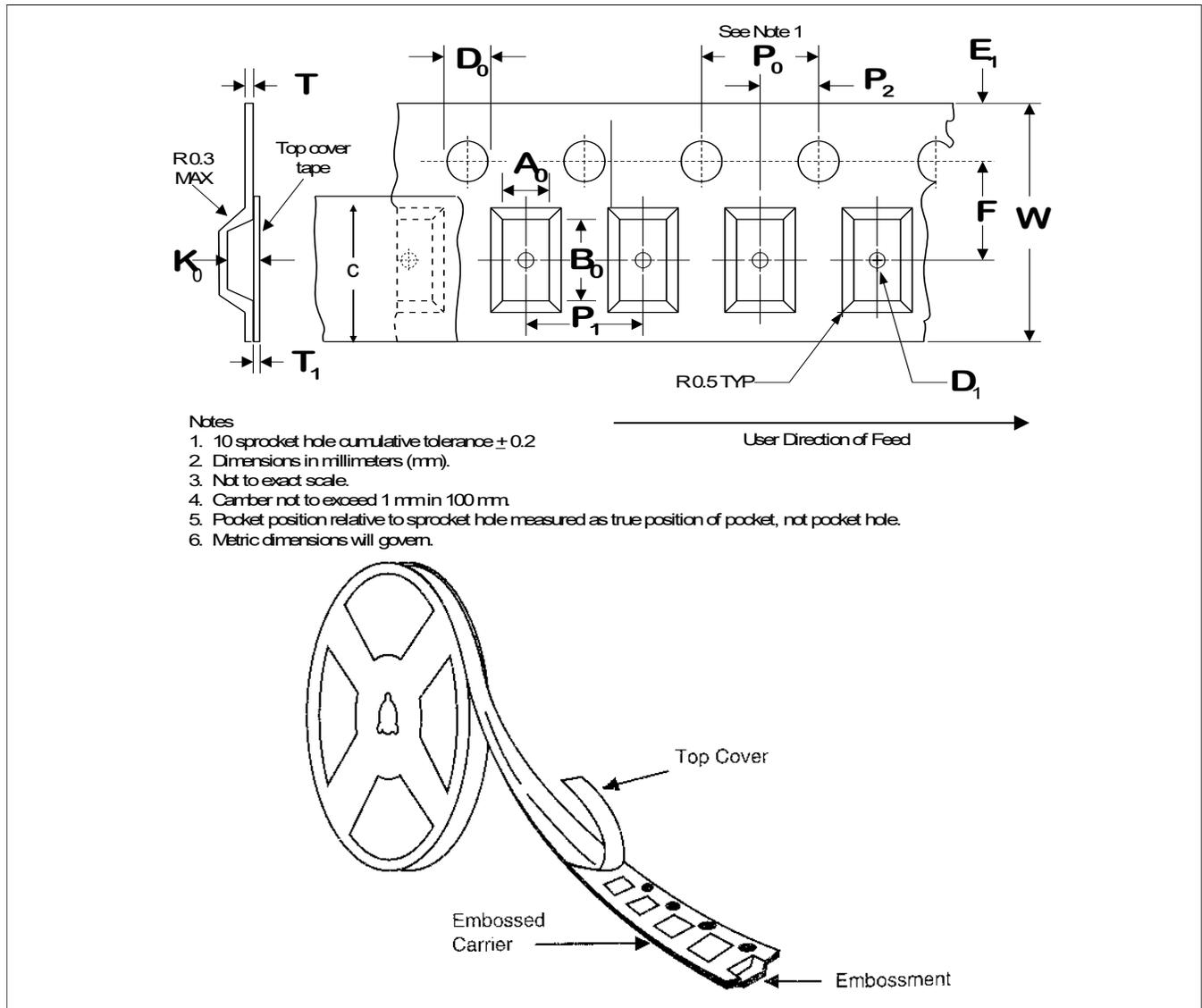


Reel Dimensions in mm

W Tape Width ²	W ₁ (+2.0/-0.0)	W ₂ (max.)	N (min.)		B (min.)	C (+0.5/-0.2)	D (min.)
			A = 7 inch	A = 13 inch			
8	8.4	14.4	50	N/A	1.5	13	20.2
12	12.4	18.4	50	100	1.5	13	20.2
16	16.4	22.4	50	100	1.5	13	20.2
24	24.4	30.4	N/A	100	1.5	13	20.2
32	32.4	38.4	N/A	100	1.5	13	20.2

1. See section 5.0 Reel Diameter Dimensions.
2. See section 3.0 Tape Dimensions.

3.0 Tape Dimensions



Application Note

Tape Dimensions

Tape Dimensions	Description	Symbol	Size (mm)
Perforation	Diameter	D_0	$1.5 +0.1 / -0.0$
	Pitch	P_0	4 ± 0.1
	Position	E_1	1.75 ± 0.1
	Thickness	T	0.25 ± 0.1
Cover Tape	Thickness	T_1	0.06 ± 0.02

1 mm X1DFN-6LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	1.2 + 0.0/-0.05
	Width	B ₀	1.2 + 0.0/-0.05
	Depth	K ₀	0.55 ± 0.05
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.5 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

1.2 x 1.5 mm TDFN-6LD (0.5 mm Lead Pitch) & 1.5 x 1.2 mm TDFN-6LD (0.4 mm Lead Pitch)

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	1.75 ± 0.1
	Width	B ₀	1.35 ± 0.1
	Depth	K ₀	1.02 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

2 mm PDFN-8LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2.42 ± 0.1
	Width	B ₀	2.42 ± 0.1
	Depth	K ₀	1.1 ± 0.1
	Pitch	P ₁	4 ± 0.1
	Diameter	D ₁	1 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

2 mm STDFN-8LD, 2 mm STQFN-12LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2.3 ± 0.1
	Width	B ₀	2.3 ± 0.1
	Depth	K ₀	0.75 ± 0.1
	Pitch	P ₁	4 ± 0.1
	Diameter	D ₁	1 ± 0.25
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.5 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

2 x 2.5 mm STQFN-14LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2.2 ± 0.1
	Width	B ₀	2.7 ± 0.1
	Depth	K ₀	0.7 ± 0.05
	Pitch	P ₁	4 ± 0.1
	Diameter	D ₁	0.7 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.5 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

3 mm PQFN-12LD, 3 mm PQFN-16LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.3 ± 0.1
	Width	B ₀	3.3 ± 0.1
	Depth	K ₀	1.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

3 mm PQFN-12LD (1.1 mm Height)

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.3 ± 0.1
	Width	B ₀	3.3 ± 0.1
	Depth	K ₀	1.3 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

3 x 4 mm PQFN-22LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.40 ± 0.1
	Width	B ₀	4.40 ± 0.1
	Depth	K ₀	0.65 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

3 x 5 mm PQFN-24LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.3 ± 0.1
	Width	B ₀	5.3 ± 0.1
	Depth	K ₀	1.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 + 0.3 / -0.1

3 x 6 mm PDFN-14LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.25 ± 0.1
	Width	B ₀	6.35 ± 0.1
	Depth	K ₀	1.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

4 mm PQFN-16LD, 4 mm PQFN-20LD, 4 mm PQFN-24LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.35 ± 0.1
	Width	B ₀	4.35 ± 0.1
	Depth	K ₀	1.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

4 x 6 mm PQFN-32LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.2 ± 0.1
	Width	B ₀	6.2 ± 0.1
	Depth	K ₀	1.2 ± 0.1
	Pitch	P ₁	8 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

4 x 7 mm PQFN-36LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.2 ± 0.1
	Width	B ₀	7.2 ± 0.1
	Depth	K ₀	1.2 ± 0.1
	Pitch	P ₁	8 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

5 mm QFN-6LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	5.25 ± 0.1
	Width	B ₀	5.25 ± 0.1
	Depth	K ₀	1.8 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

5 mm AQFN-12LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A_0	5.40 ± 0.1
	Width	B_0	5.40 ± 0.1
	Depth	K_0	2.4 ± 0.1
	Pitch	P_1	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P_2	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

5 mm PQFN-20LD, 5 mm PQFN-28LD, 5 mm PQFN-32LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A_0	5.25 ± 0.1
	Width	B_0	5.25 ± 0.1
	Depth	K_0	1.1 ± 0.1
	Pitch	P_1	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P_2	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

5 x 6 mm PQFN-32LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A_0	5.3 ± 0.1
	Width	B_0	6.3 ± 0.1
	Depth	K_0	1.2 ± 0.1
	Pitch	P_1	8 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

5 x 7 mm PQFN-40LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	5.5 ± 0.1
	Width	B ₀	7.5 ± 0.1
	Depth	K ₀	1.5 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

6 x 5 mm PDFN-8LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.5 ± 0.1
	Width	B ₀	5.5 ± 0.1
	Depth	K ₀	1.4 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.3 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

6 x 6 mm PQFN-18LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.3 ± 0.1
	Width	B ₀	6.3 ± 0.1
	Depth	K ₀	1.2 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

6 x 6 mm PQFN-20LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.3 ± 0.1
	Width	B ₀	6.3 ± 0.1
	Depth	K ₀	1.4 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

6.5 x 6.5 mm AQFN-40LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.86 ± 0.1
	Width	B ₀	6.86 ± 0.1
	Depth	K ₀	1.40 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

6 x 7 mm PQFN-37LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.4 ± 0.1
	Width	B ₀	7.4 ± 0.1
	Depth	K ₀	1.2 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

7 mm LGA-16LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	7.4 ± 0.1
	Width	B ₀	7.4 ± 0.1
	Depth	K ₀	1.9 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

7 x 7 mm PQFN-44LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	7.25 ± 0.1
	Width	B ₀	7.25 ± 0.1
	Depth	K ₀	1.10 ± 0.1 2.0 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

7 x 7 mm AQFN-48LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	7.3 ± 0.1 7.4 ± 0.1
	Width	B ₀	7.3 ± 0.1 7.4 ± 0.1
	Depth	K ₀	1.70 ± 0.1 1.90 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

8 mm BGA

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	8.3 ± 0.1
	Width	B ₀	8.3 ± 0.1
	Depth	K ₀	2.7 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

15 mm BGA

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	15.3 ± 0.1
	Width	B ₀	15.3 ± 0.1
	Depth	K ₀	3.8 ± 0.1
	Pitch	P ₁	20 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5 ± 0.1
Cover Tape	Width	C	21 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

BD-1

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.82 ± 0.05
	Width	B ₀	0.82 ± 0.05
	Depth	K ₀	0.395 ± 0.05
	Pitch	P ₁	4 ± 0.1
	Pocket Hole Diameter	D ₁	0.35 ± 0.05
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.3 ± 0.1
Carrier Tape	Width	W	8 ± 0.1

BD-2

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	1.1 ± 0.05
	Width	B ₀	1.25 ± 0.05
	Depth	K ₀	0.298 ± 0.028
	Pitch	P ₁	4 ± 0.1
	Pocket Hole Diameter	D ₁	0.5 ± 0.05
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.3 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

BD-3

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.58 ± 0.05
	Width	B ₀	0.7 ± 0.05
	Depth	K ₀	0.36 ± 0.05
	Pitch	P ₁	4 ± 0.1
	Pocket Hole Diameter	D ₁	N/A
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.3 ± 0.1
Carrier Tape	Width	W	8 ± 0.1

CR-5

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	9.02 ± 0.1
	Width	B ₀	9.91 ± 0.1
	Depth	K ₀	2.03 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5 ± 0.1
Cover Tape	Width	C	21 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

LCC1

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.47
	Width	B ₀	11.15
	Depth	K ₀	3.38
	Pitch	P ₁	16
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5
Carrier Tape	Width	W	24

LSM1

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	13
	Width	B ₀	13
	Depth	K ₀	4.7
	Pitch	P ₁	16
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5
Carrier Tape	Width	W	24

LSM2

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.08
	Width	B ₀	15.29
	Depth	K ₀	3.94
	Pitch	P ₁	16
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5
Carrier Tape	Width	W	24

LSM3

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.97
	Width	B ₀	12.62
	Depth	K ₀	4.75
	Pitch	P ₁	16
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5
Carrier Tape	Width	W	24

LSM6

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	20.5
	Width	B ₀	15
	Depth	K ₀	4.1
	Pitch	P ₁	24
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5
Carrier Tape	Width	W	24

MSOP-8, MSOP-8EP, MSOP-10

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	5.3 ± 0.1
	Width	B ₀	3.4 ± 0.1
	Depth	K ₀	1.4 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

ODS-120

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	1.42 - 1.79
	Width	B ₀	1.29 - 1.52
	Depth	K ₀	1.42 - 1.78
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

ODS-186

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	9.32 ± 0.1
	Width	B ₀	2.7 ± 0.1
	Depth	K ₀	1.37 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.1

ODS-1056

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2 ± 0.1
	Width	B ₀	2 ± 0.1
	Depth	K ₀	1.19 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

ODS-1072

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2.54 ± 0.1
	Width	B ₀	3.56 ± 0.1
	Depth	K ₀	2.54 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.3 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

ODS-1079

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.2 ± 0.1
	Width	B ₀	3.2 ± 0.1
	Depth	K ₀	3.12 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.3 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

ODS-1091

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.19 ± 0.1
	Width	B ₀	5.38 ± 0.1
	Depth	K ₀	4.06 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	5.5 ± 0.05
Cover Tape	Width	C	9.3 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

ODS-1294,1295,1306

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.64 ± 0.05
	Width	B ₀	1.12 ± 0.05
	Depth	K ₀	0.3 ± 0.05
	Pitch	P ₁	4.0 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2.0 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8.0 +0.30/-0.1

ODS-1305,1269

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.46 ± 0.03
	Width	B ₀	0.79 ± 0.03
	Depth	K ₀	0.28 ± 0.03
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

ODS-1402,1411,1500

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.47 ± 0.03
	Width	B ₀	0.84 ± 0.03
	Depth	K ₀	0.31 ± 0.03
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

QSOP-16, QSOP-16EP

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.8 ± 0.1
	Width	B ₀	5.4 ± 0.1
	Depth	K ₀	1.6 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

QSOP-24

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.5 ± 0.1
	Width	B ₀	9 ± 0.1
	Depth	K ₀	2.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

QSOP-28

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.5 ± 0.1
	Width	B ₀	10.3 ± 0.1
	Depth	K ₀	2.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

R-1, R-4, R-5, R-15

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	12.5 ± 0.1
	Width	B ₀	12.9 ± 0.1
	Depth	K ₀	6.1 ± 0.1
	Pitch	P ₁	16 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

SC70-3LD, SC70-6LD

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	2.25 ± 0.1
	Width	B ₀	2.4 ± 0.1
	Depth	K ₀	1.2 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

SC-79

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	0.9 ± 0.05
	Width	B ₀	1.94 ± 0.05
	Depth	K ₀	0.73 ± 0.05
	Pitch	P ₁	4 ± 0.05
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

SM-1, SM-23, SM-69, SM-87, SM-89, SM-134

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	7 ± 0.1
	Width	B ₀	8.5 ± 0.1
	Depth	K ₀	5.3 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SM-2, SM-4, SM-74, SM-108

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.26 ± 0.1
	Width	B ₀	13.46 ± 0.1
	Depth	K ₀	6.1 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

SM-3

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	20.5 ± 0.1
	Width	B ₀	20.5 ± 0.1
	Depth	K ₀	5.3 ± 0.1
	Pitch	P ₁	24 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SM-7-1

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	16.3 ± 0.1
	Width	B ₀	21.4 ± 0.1
	Depth	K ₀	5.6 ± 0.1
	Pitch	P ₁	24 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SM-20

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	8.1 ± 0.1
	Width	B ₀	15.4 ± 0.1
	Depth	K ₀	7.1 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

SM-22

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.3 ± 0.1
	Width	B ₀	5 ± 0.1
	Depth	K ₀	2.8 ± 0.1
	Pitch	P ₁	8 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

SM-24

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.5 ± 0.1
	Width	B ₀	8.28 ± 0.1
	Depth	K ₀	5.5 ± 0.1
	Pitch	P ₁	16 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

SM-26

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	12.1 ± 0.1
	Width	B ₀	19.8 ± 0.1
	Depth	K ₀	5.5 ± 0.1
	Pitch	P ₁	16 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SM-28

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	12.1 ± 0.1
	Width	B ₀	21.1 ± 0.1
	Depth	K ₀	6.5 ± 0.1
	Pitch	P ₁	24 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SM-41

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.9 ± 0.1
	Width	B ₀	8.4 ± 0.1
	Depth	K ₀	7.4 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	24 ± 0.3

SM-44, SM-68

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	7.5 ± 0.1
	Width	B ₀	8.4 ± 0.1
	Depth	K ₀	5.5 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SM-46

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	20.9 ± 0.1
	Width	B ₀	11.4 ± 0.1
	Depth	K ₀	6.8 ± 0.1
	Pitch	P ₁	24 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SM-52

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	5.6 ± 0.1
	Width	B ₀	5.6 ± 0.1
	Depth	K ₀	3 ± 0.1
	Pitch	P ₁	8 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

SM-55

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.8 ± 0.1
	Width	B ₀	7.6 ± 0.1
	Depth	K ₀	3.5 ± 0.1
	Pitch	P ₁	12 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SM-106

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.7 ± 0.1
	Width	B ₀	20.8 ± 0.1
	Depth	K ₀	6 ± 0.1
	Pitch	P ₁	24 ± 0.1
Carrier Tape	Width	W	32 ± 0.3

SOD-323

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	1.46 ± 0.1
	Width	B ₀	2.9 ± 0.05
	Depth	K ₀	1.25 ± 0.05
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.05
	Cavity to Perforation (width)	F	3.5 ± 0.05
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 +0.3/-0.1

SOIC-8 (SO-8)

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.4 ± 0.1
	Width	B ₀	5.2 ± 0.1
	Depth	K ₀	2.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.1
Cover Tape	Width	C	9.2 ± 0.1
Carrier Tape	Width	W	12 ± 0.3

SOIC-14 (SO-14), SSOP-24

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.5 ± 0.1
	Width	B ₀	9 ± 0.1
	Depth	K ₀	2.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SOIC-16 (SO-16), SSOP-28

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.5 ± 0.1
	Width	B ₀	10.3 ± 0.1
	Depth	K ₀	2.1 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SOT-23

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.125 ± 0.125
	Width	B ₀	2.835 ± 0.165
	Depth	K ₀	1.23 ± 0.11
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

SOT-25, SOT-26

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.2 ± 0.1
	Width	B ₀	3.2 ± 0.1
	Depth	K ₀	1.4 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

SOT-89

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	4.6 ± 0.1
	Width	B ₀	4.78 ± 0.1
	Depth	K ₀	1.9 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	5.5 ± 0.5
Cover Tape	Width	C	9.3 ± 0.1
Carrier Tape	Width	W	12 ± 0.2

SOT-143

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.1 ± 0.1
	Width	B ₀	2.69 ± 0.1
	Depth	K ₀	1.3 ± 0.1
	Pitch	P ₁	4 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	3.5 ± 0.1
Cover Tape	Width	C	5.4 ± 0.1
Carrier Tape	Width	W	8 ± 0.3

SOW-16 (SOIC-16 Wide Body)

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.9 ± 0.1
	Width	B ₀	10.7 ± 0.1
	Depth	K ₀	3 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

SOW-24 (SOIC-24 Wide Body)

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	10.7 ± 0.2
	Width	B ₀	15.8 ± 0.2
	Depth	K ₀	3 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	11.5 ± 0.1
Cover Tape	Width	C	20
Carrier Tape	Width	W	24 ± 0.3

SSOP-8

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	3.4 ± 0.1
	Width	B ₀	8.3 ± 0.1
	Depth	K ₀	2.54 ± 0.1
	Pitch	P ₁	8
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

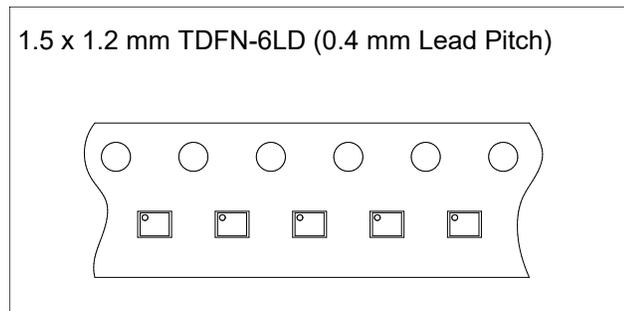
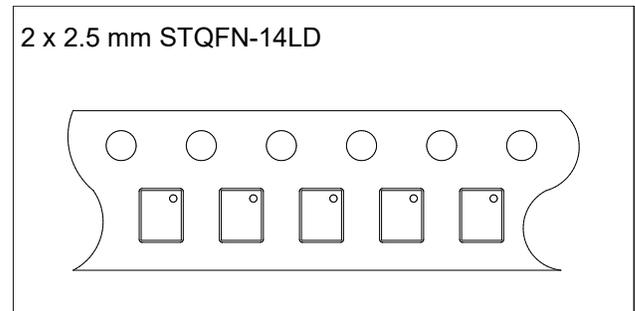
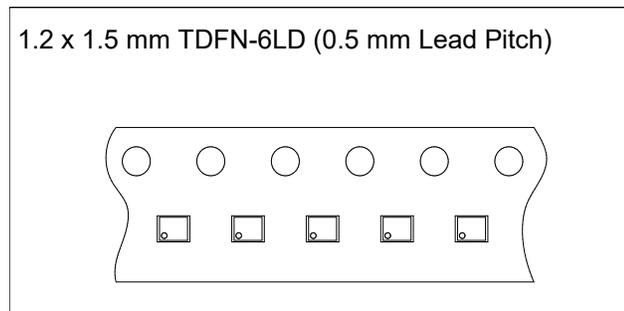
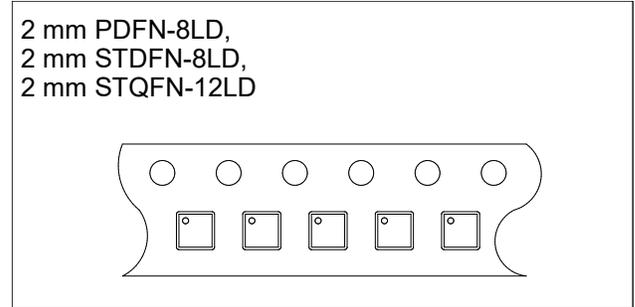
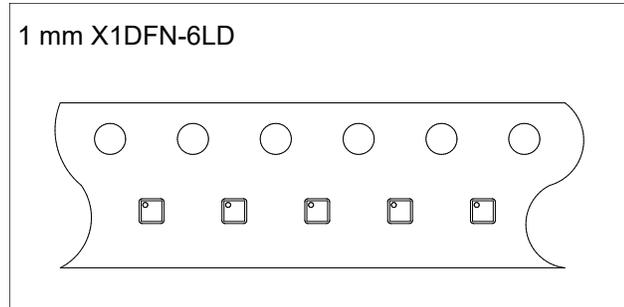
SSOP-20

Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	8.2 ± 0.1
	Width	B ₀	7.5 ± 0.1
	Depth	K ₀	2.5 ± 0.1
	Pitch	P ₁	12 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

TSSOP-16, TSSOP-16EP

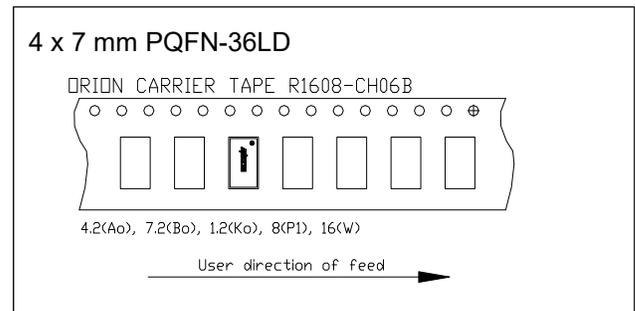
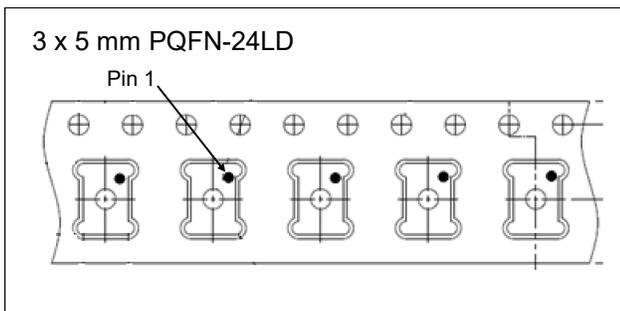
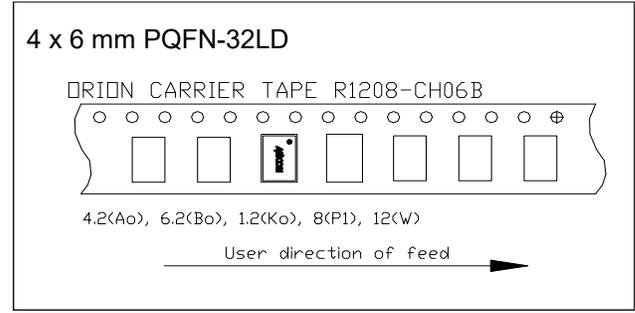
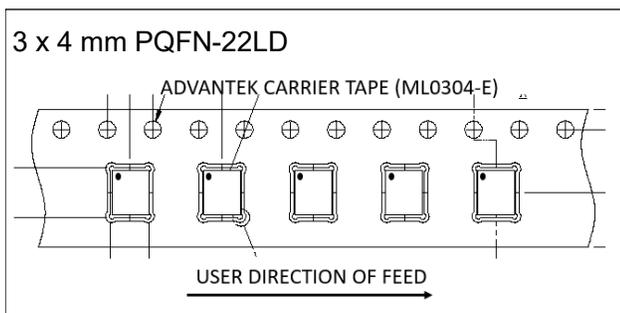
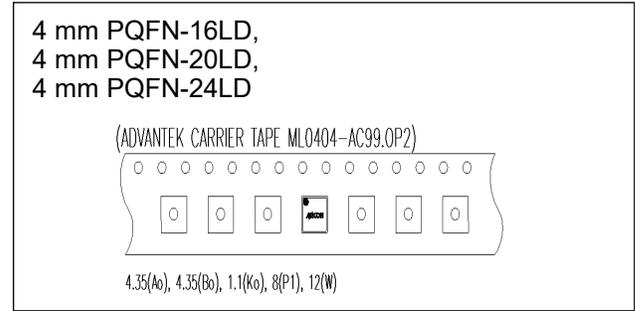
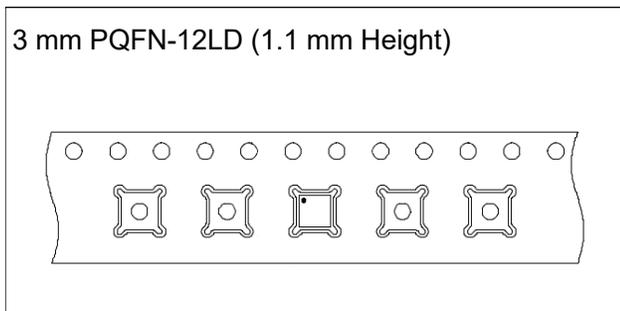
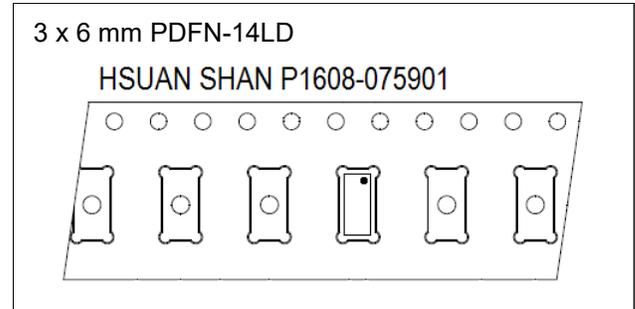
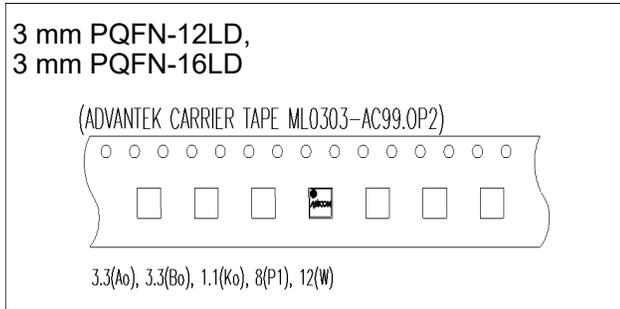
Tape Dimensions	Description	Symbol	Size (mm)
Cavity	Length	A ₀	6.95 ± 0.1
	Width	B ₀	5.6 ± 0.1
	Depth	K ₀	1.6 ± 0.1
	Pitch	P ₁	8 ± 0.1
Distance Between Centerlines	Cavity to Perforation (length)	P ₂	2 ± 0.1
	Cavity to Perforation (width)	F	7.5 ± 0.1
Cover Tape	Width	C	13.3 ± 0.1
Carrier Tape	Width	W	16 ± 0.3

4.0 Component Orientation for Tape and Reel



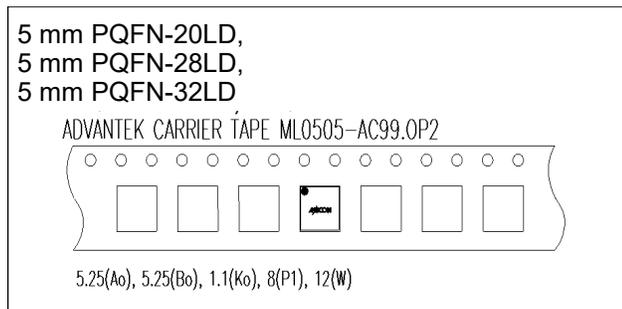
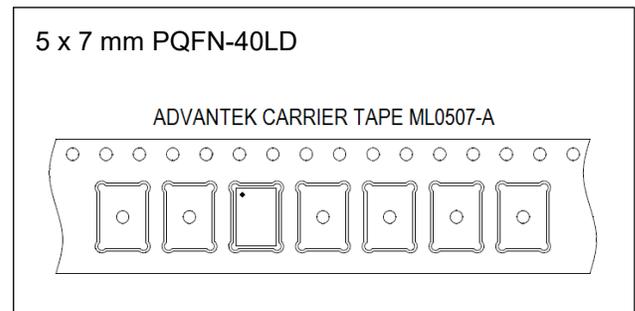
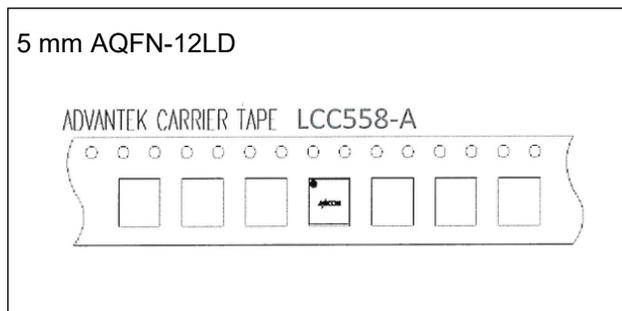
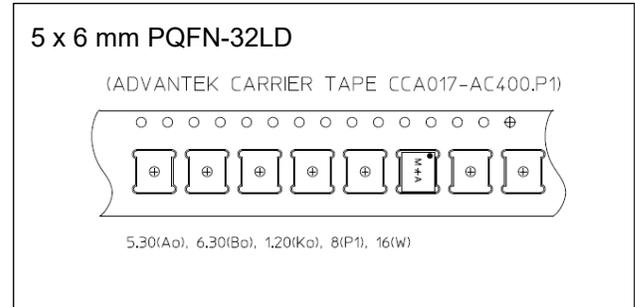
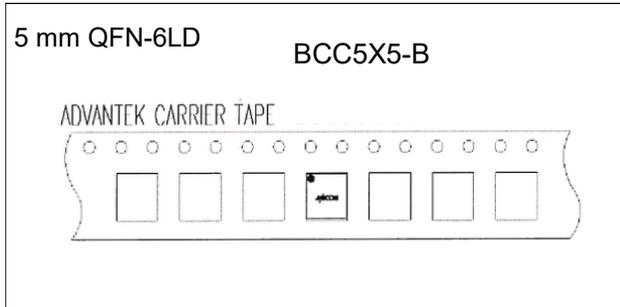
Application Note

4.0 Component Orientation for Tape and Reel



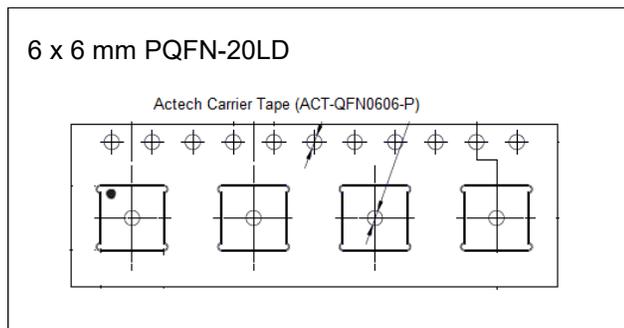
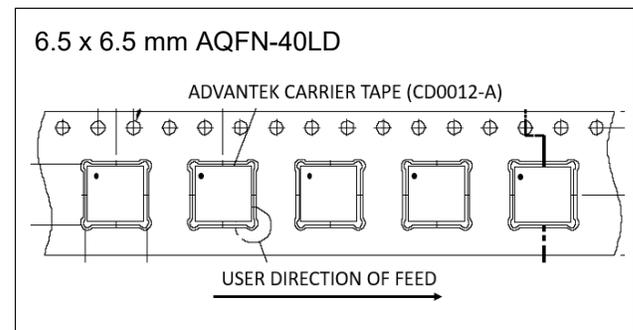
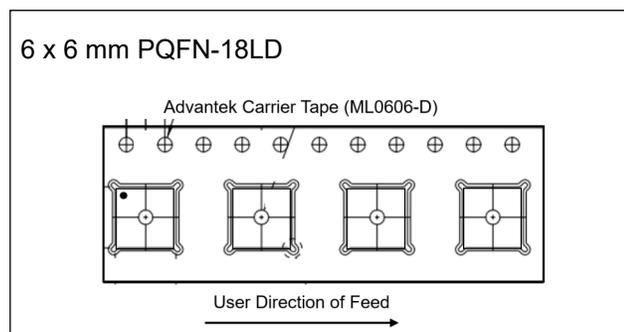
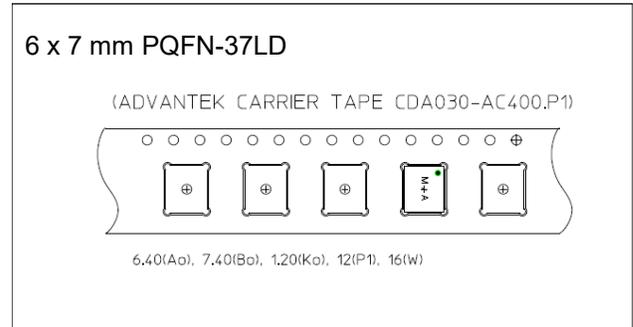
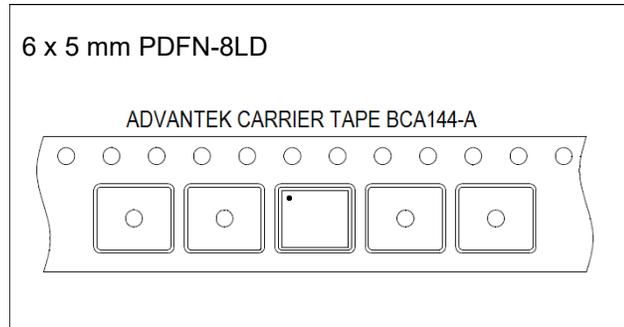
Application Note

4.0 Component Orientation for Tape and Reel

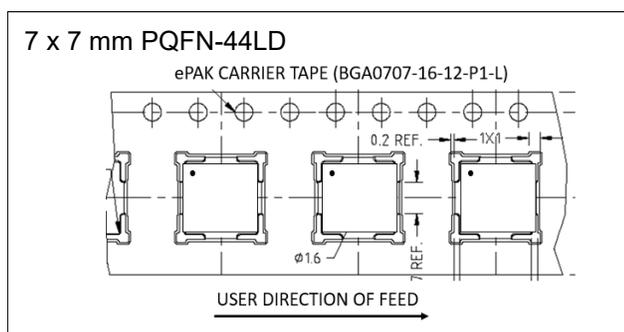
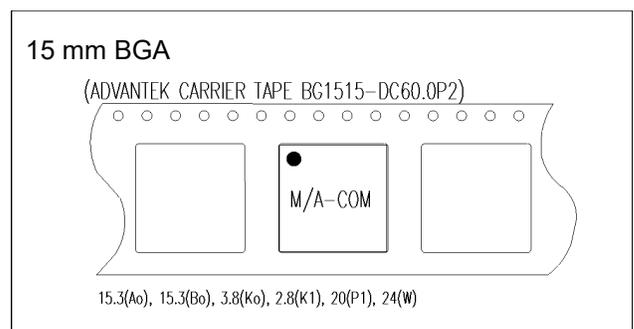
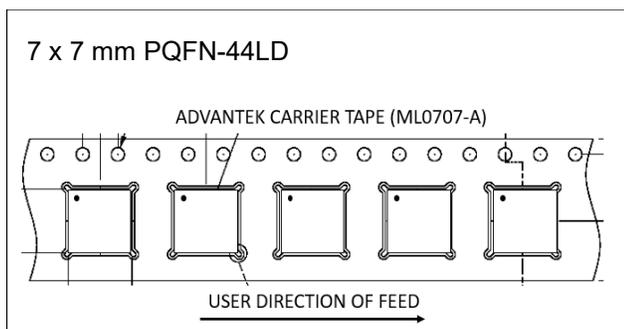
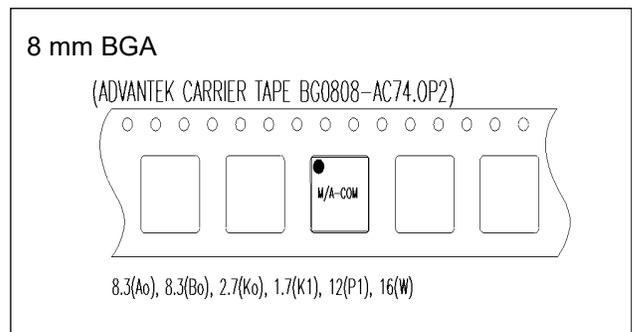
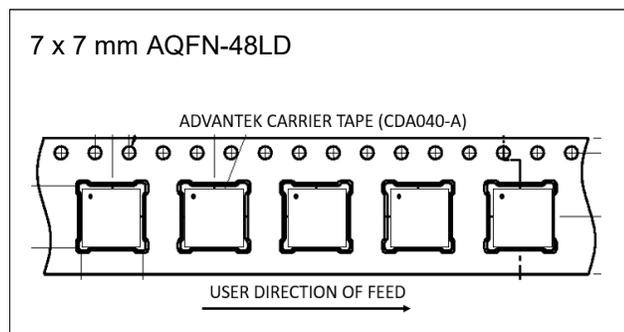
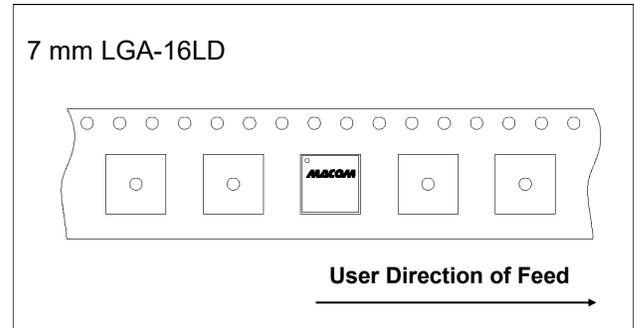
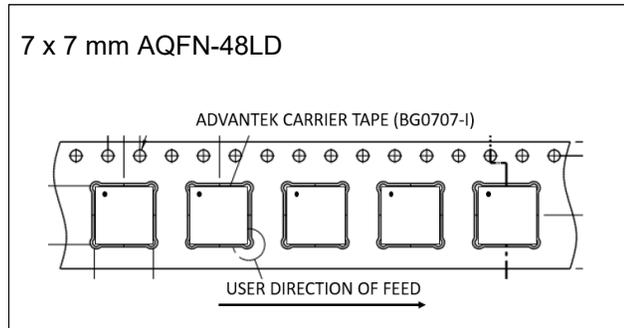


Application Note

4.0 Component Orientation for Tape and Reel

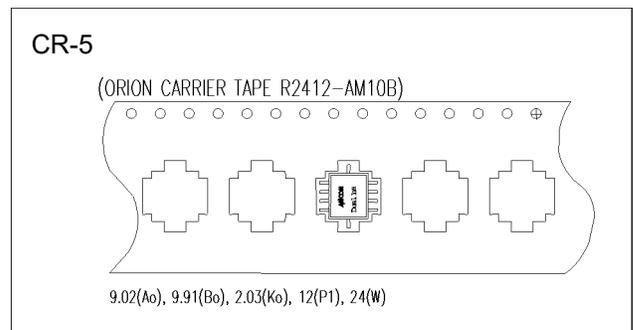
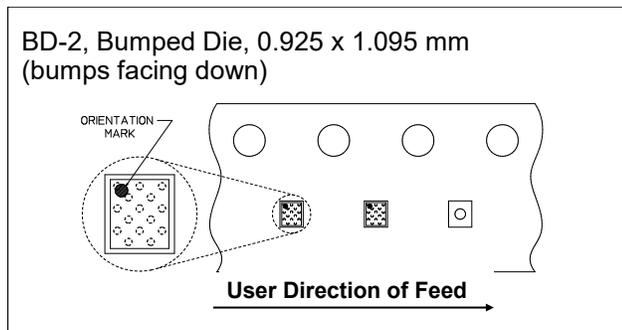
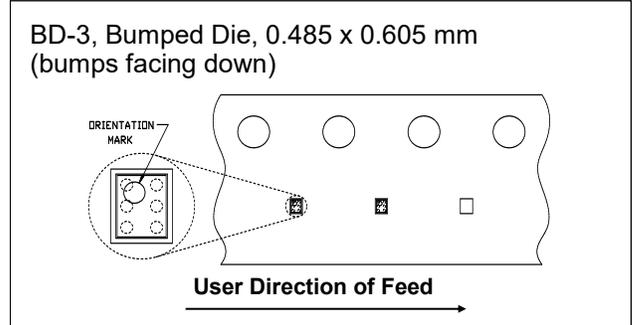
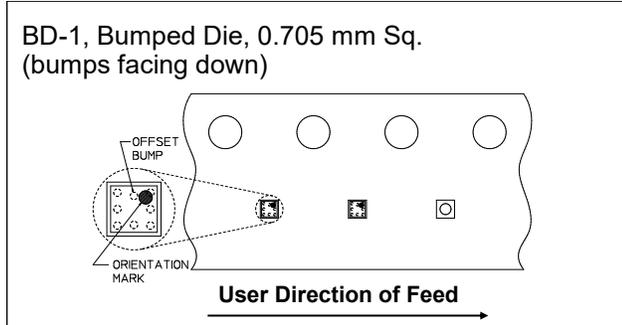


4.0 Component Orientation for Tape and Reel

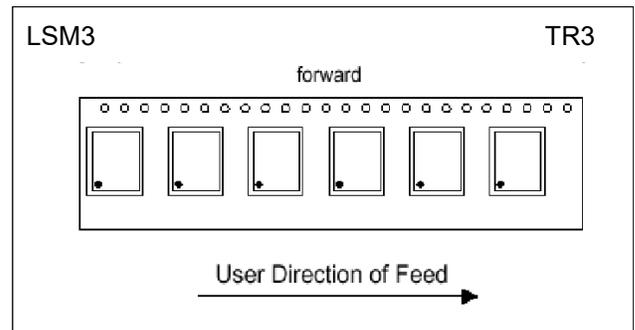
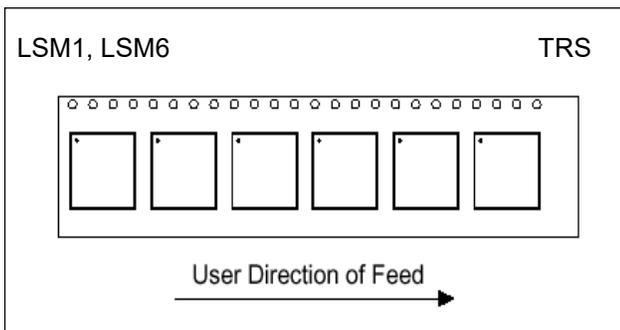
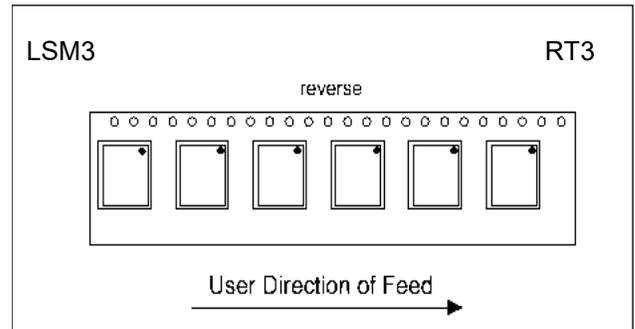
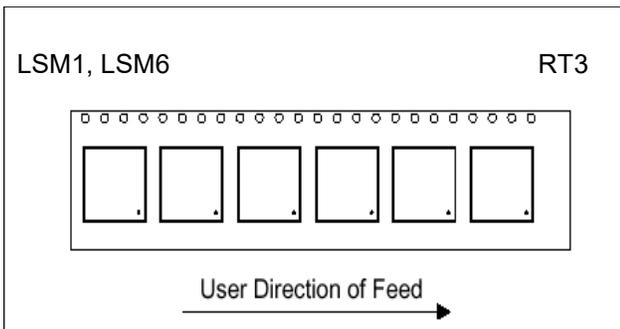
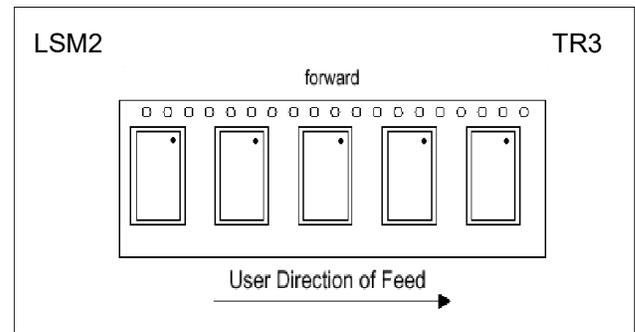
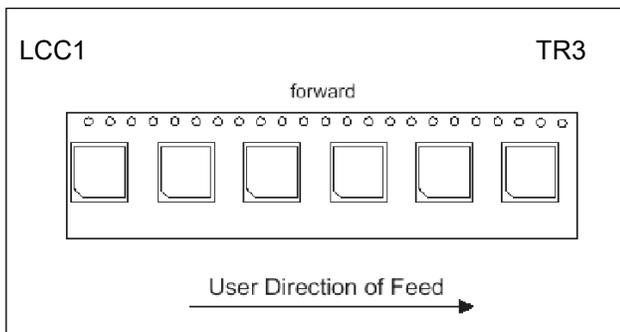
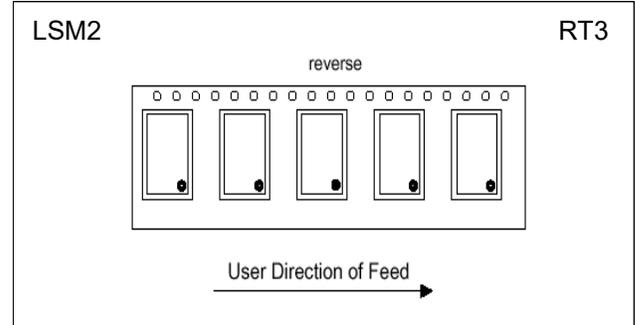
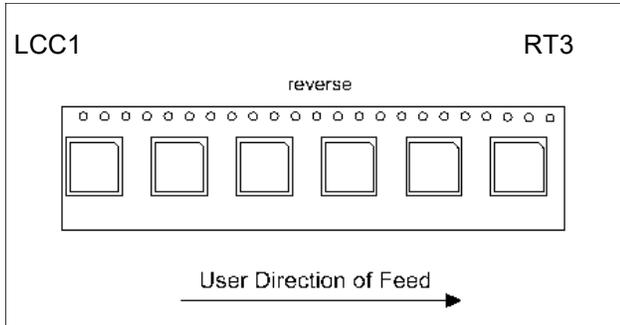


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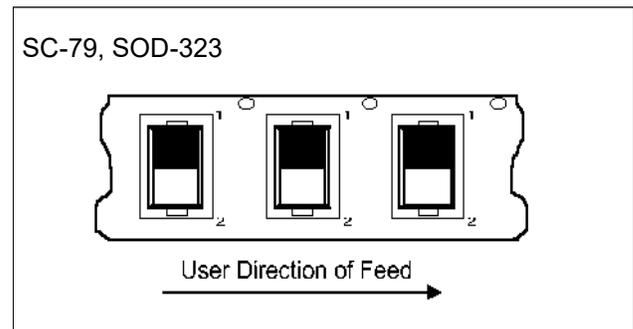
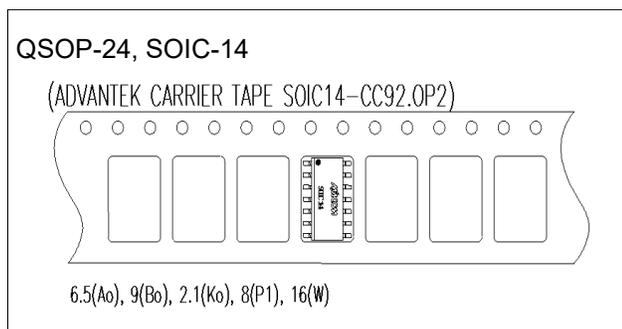
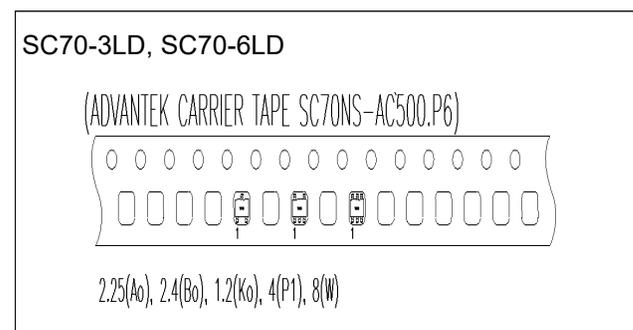
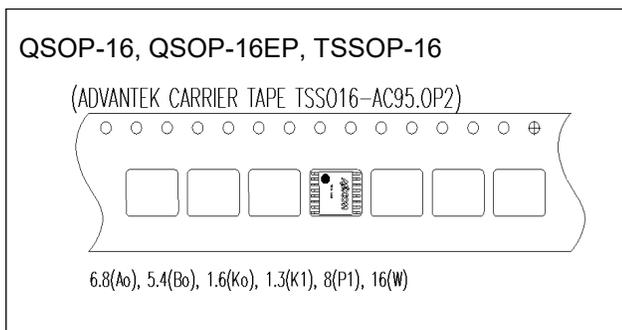
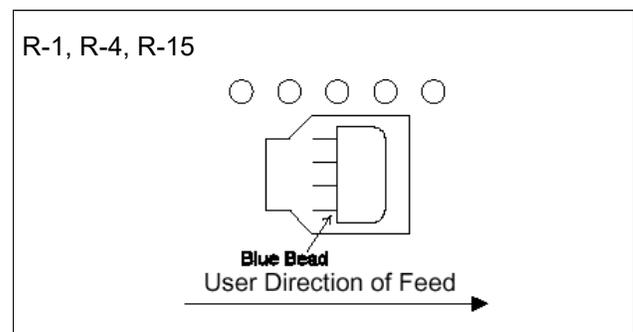
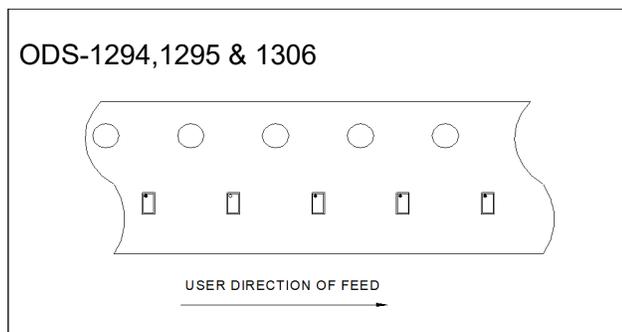
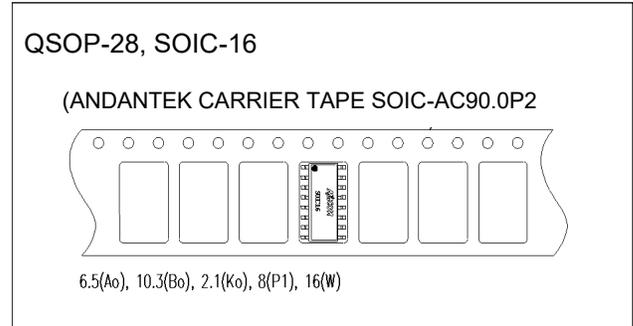
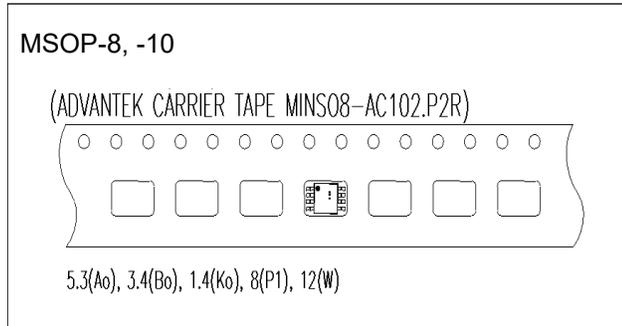
4.0 Component Orientation for Tape and Reel



4.0 Component Orientation for Tape and Reel

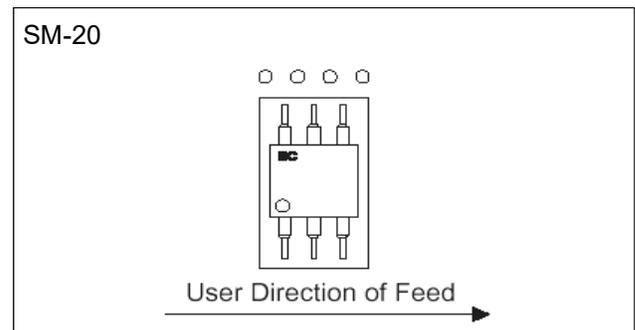
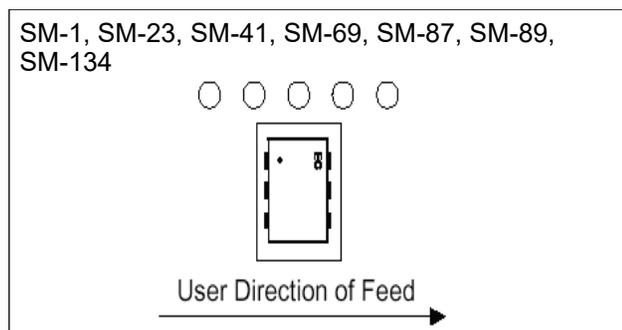
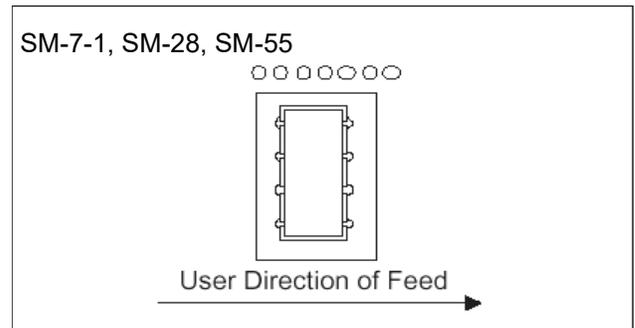
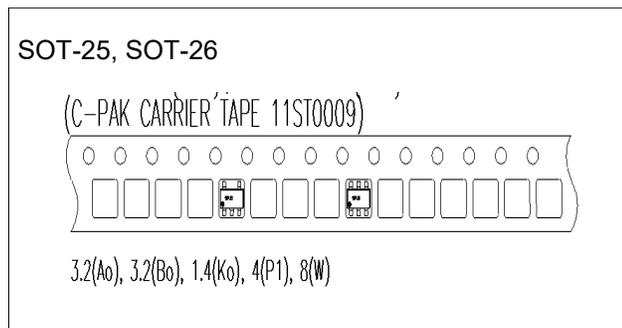
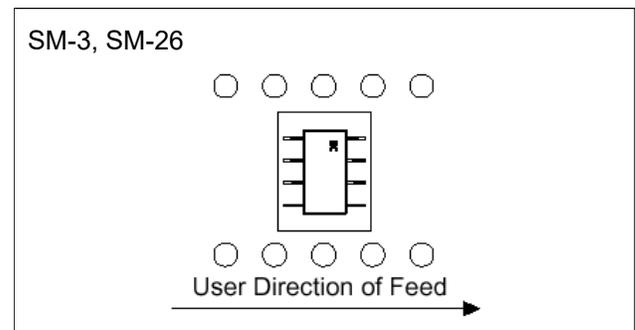
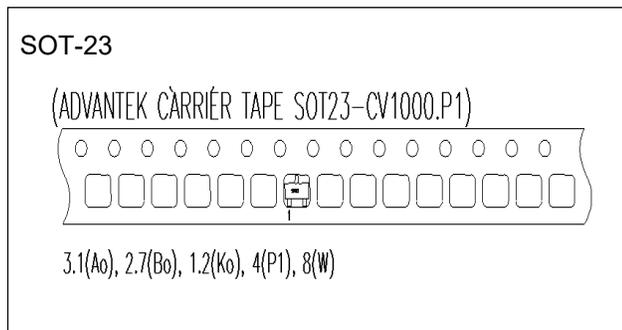
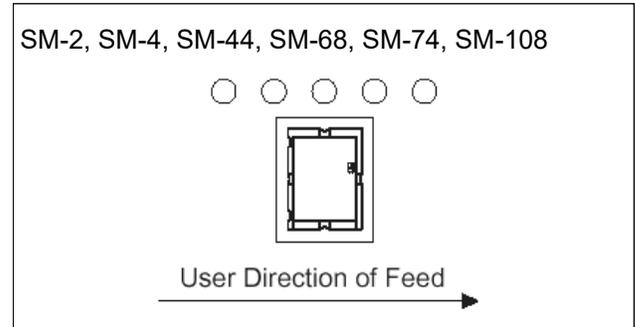
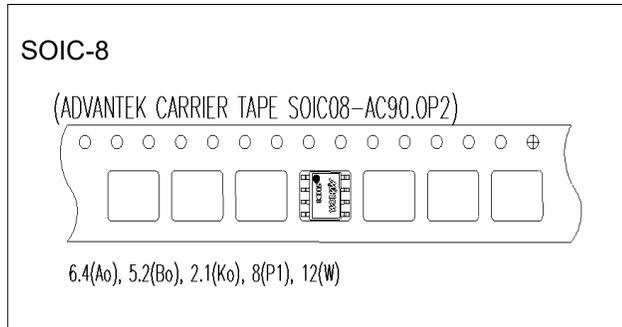


4.0 Component Orientation for Tape and Reel



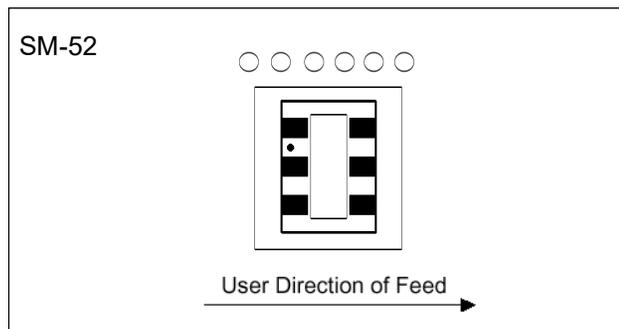
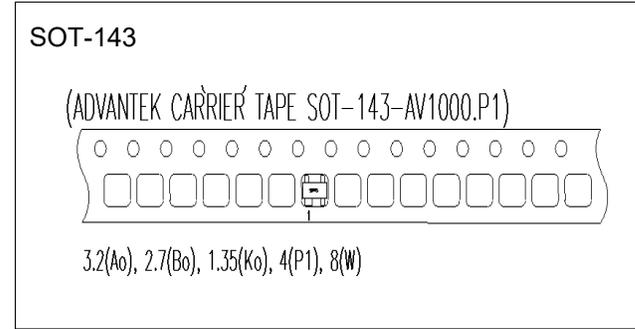
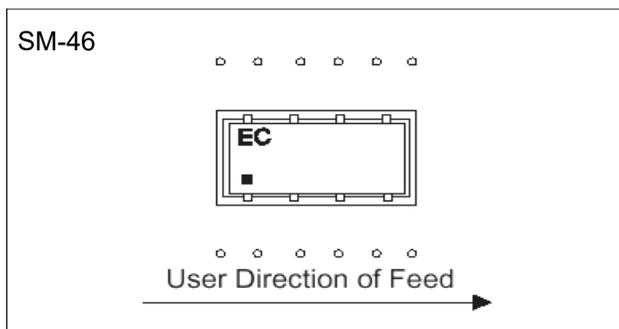
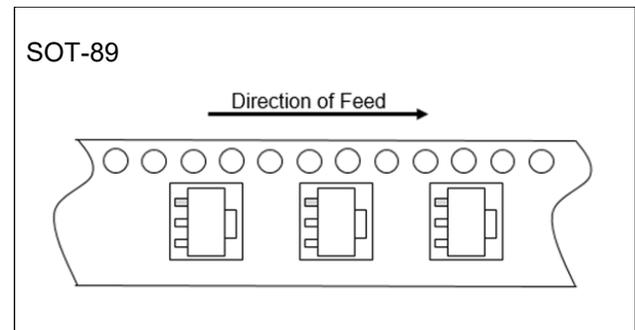
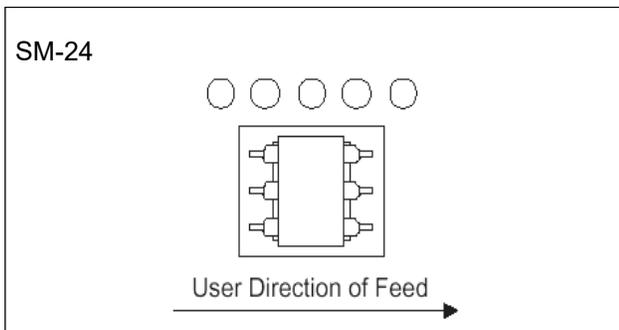
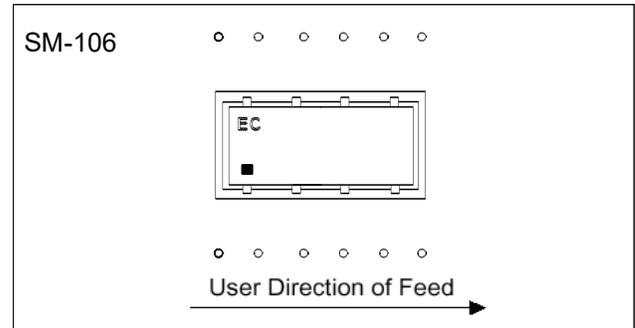
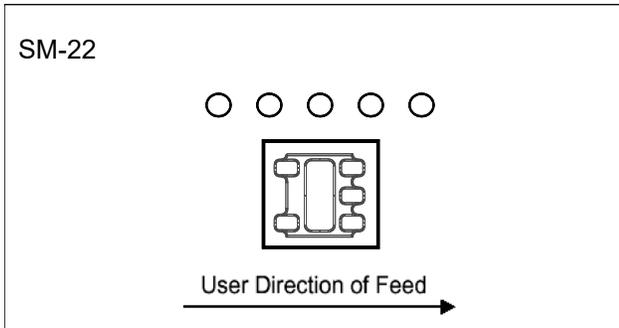
Application Note

4.0 Component Orientation for Tape and Reel



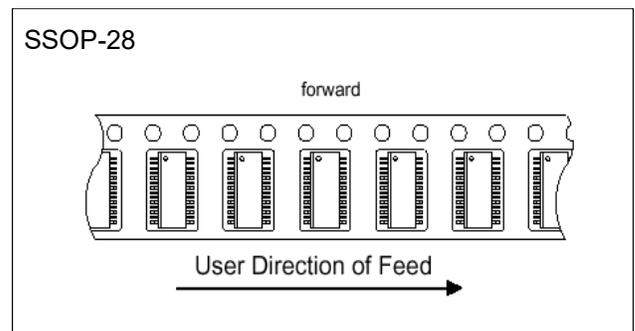
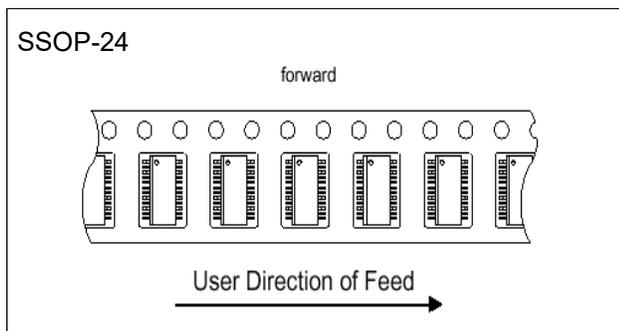
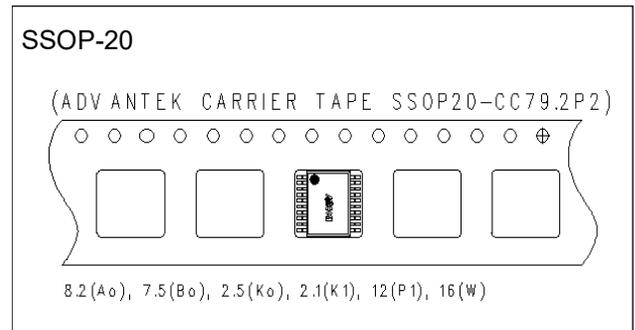
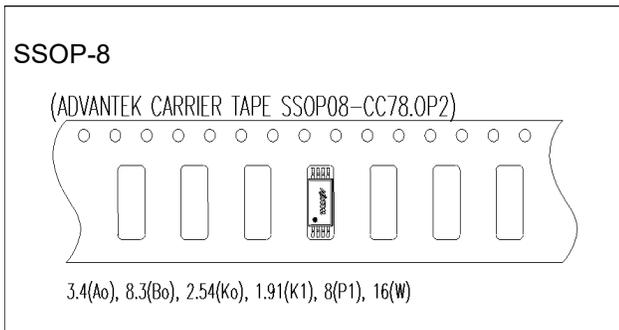
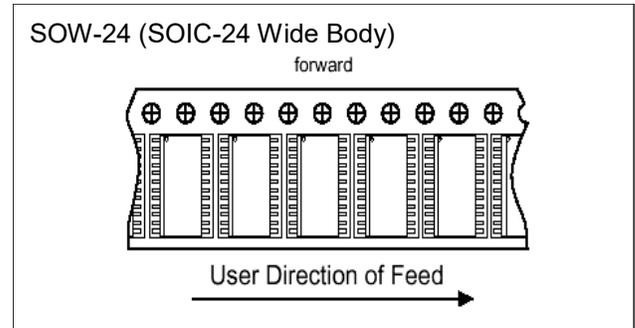
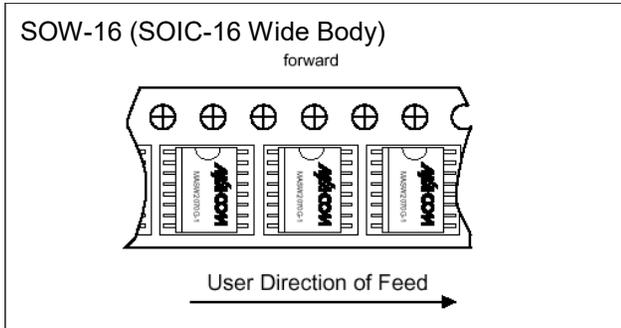
Application Note

4.0 Component Orientation for Tape and Reel



Application Note

4.0 Component Orientation for Tape and Reel



5.0 Reel Information^{3,4}

Package Type	Max. Devices per Reel	Reel Diameter (inches)
1 mm X1DFN-6LD 2 mm STDFN-8LD 2 mm STQFN-12LD 2 x 2.5 mm STQFN-14LD	3000	7
1.2 x 1.5 mm TDFN-6LD (0.5 mm pitch) 1.5 x 1.2 mm TDFN-6LD (0.4 mm pitch)	3000	7
2 mm PDFN-8LD	3000	13
3 mm PQFN-12LD 3 mm PQFN-12LD (1.1 mm height) 3 mm PQFN-16LD 3 x 6 mm PDFN-14LD 4 mm PQFN-16LD 4 mm PQFN-20LD 4 mm PQFN-24LD	1000 3000	7 13
3 x 4 mm PQFN-22LD	500	7
3 x 5 mm PQFN-24LD 4 x 6 mm PQFN-32LD 4 x 7 mm PQFN-36LD	1000	7
5 mm QFN-6LD	500	7
5 mm AQFN-12LD 5 mm PQFN-20LD 5 mm PQFN-28LD 5 mm PQFN-32LD	1000	7
5 x 6 mm PQFN-36LD 5 x 7 mm PQFN-40LD	1000 3000	7 13
6 x 5 mm PDFN-8LD 6 x 7 mm PQFN-37LD	1000 3000	7 13
6 x 6 mm PQFN-18LD	1000	7
6 x 6 mm PQFN-20LD	3000	13
6.5 x 6.5 mm AQFN-40LD	500	7
7 mm LGA-16LD	500	7
7 x 7 mm PQFN-44LD	500	7
7 x 7 mm AQFN-48LD	1000 3000	7 13
8 mm BGA 15 mm BGA	1000	13
BD-1 BD-2 BD-3	3000	7
CR-5	2500	13

5.0 Reel Information (continued)^{3,4}

Package Type	Max. Devices per Reel	Reel Diameter (inches)
BD-1 BD-2 BD-3	3000	7
CR-5	2500	13
LCC1 LSM1 LSM2 LSM3	500	13
LSM6	300	13
MSOP8 MSOP-8EP MSOP-10	1000 3000	7 13
ODS-120	2000	7
ODS-186	750	7
ODS-1056	2500	7
ODS-1072	5000	13
ODS-1079	750	7
ODS-1091	500	7
ODS-1269 ODS-1294 ODS-1295 ODS-1305 ODS-1306 ODS-1402 ODS-1411 ODS-1500	3000	7
QSOP-16 QSOP-16EP QSOP-24 QSOP-28	1000	7
R-1 R-4 R-5 R-15	500	13
SC70-3LD SC70-6LD SC-79 SOT-23 SOT-25 SOT-26 SOT-89 SOT-143 SOD-323	3000	7

5.0 Reel Information (continued)^{3,4}

Package Type	Max. Devices per Reel	Reel Diameter (inches)
SM-1 SM-55 SM-69	900	13
SM-2 SM-4 SM-7-1 SM-20 SM-23 SM-24 SM-41 SM-44	500	13
SM-3 SM-26 SM-28 SM-46	300	13
SM-22	2000	13
SM-52	2500	13
SM-68 SM-74 SM-106 SM-108	500	13
SM-87 SM-89 SM-134	900	13
SOIC-8 (SO-8)	1000 3000 2000 (E-Series)	7 13 13
SOIC 14 (SO-14) SOIC 16 (SO-16)	1000 3000	7 13
SOW-16 (SOIC-16 Wide Body) SOW-24 (SOIC-24 Wide Body)	1000	13
SSOP-8	900 3000	7 13
SSOP-20 SSOP-24 SSOP-28	1000	13
TSSOP-16 TSSOP-16EP	1000 2500	7 13

3. See individual data sheets for part number ordering information.

4. Most device in tape and reel must be ordered in multiples of 100 pieces, with a minimum order quantity of either 200 or 500 pieces per part number. Consult factory for individual package types.

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