



## PRODUCT CATALOG

### Open- Pak™ QFN / MLP / DFN Package Configuration Options (Dimensions in Millimeters)

BODY SIZE	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
3X3	10	1.36X2.20	.50	.75	MO-229	DFN3X3-10-OP-01	DFN3X3-10-OP-01-B	CL-MLP-3X3-15-01
3X3	12	1.36 SQ	.65	.75	MO-220	MLP3X3-12-OP-01	MLP3X3-12-OP-01-B	CL-MLP3X3-15-01
3X3	16	1.36SQ	.50	.75	MO-220	MLP3X3-16-OP-01	MLP3X3-16-OP-01-B	CL-MLP3X3-15-01
4X4	12	2.30 SQ	.80	.80	MO-220	MLP4X4-12-OP-01	MLP4X4-12-OP-01-B	CL-MLP4X4-15-01
4X4	16	2.30 SQ	.65	.80	MO-220	MLP4X4-16-OP-01	MLP4X4-16-OP-01-B	CL-MLP4X4-15-01
4X4	20	2.30 SQ	.50	.80	MO-220	MLP4X4-20-OP-01	MLP4X4-20-OP-01-B	CL-MLP4X4-15-01
4X4	24	2.30 SQ	.50	.80	MO-220	MLP4X4-24-OP-01	MLP4X4-24-OP-01-B	CL-MLP4X4-15-01
5X5	16	3.10 SQ	.80	.80	MO-220	MLP5X5-16-OP-01	MLP5X5-16-OP-01-B	CL-MLP5X5-15-01
5X5	20	3.30 SQ	.65	.80	MO-220	MLP5X5-20-OP-01	MLP5X5-20-OP-01-B	CL-MLP5X5-15-01
5X5	24	3.10 SQ	.65	.80	MO-220	MLP5X5-24-OP-01	MLP5X5-24-OP-01-B	CL-MLP5X5-15-01
5X5	28	3.10 SQ	.50	.80	MO-220	MLP5X5-28-OP-01	MLP5X5-28-OP-01-B	CL-MLP5X5-15-01
5X5	32	3.30 SQ	.50	.80	MO-220	MLP5X5-32-OP-01	MLP5X5-32-OP-01-B	CL-MLP5X5-15-01
6X6	24	4.24 SQ	.65	.80	MO-220	MLP6X6-24-OP-01	MLP6X6-24-OP-01-B	CL-MLP6X6-15-01
6X6	28	4.24 SQ	.65	.80	MO-220	MLP6X6-28-OP-01	MLP6X6-28-OP-01-B	CL-MLP6X6-15-01
6X6	36	4.24 SQ	.50	.80	MO-220	MLP6X6-36-OP-01	MLP6X6-36-OP-01-B	CL-MLP6X6-15-01
6X6	40	4.24 SQ	.50	.80	MO-220	MLP6X6-40-OP-01	MLP6X6-40-OP-01-B	CL-MLP6X6-15-01



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### Open- Pak™ QFN / MLP / DFN Package Configuration Options (Dimensions in Millimeters)

BODY SIZE	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
7X7	28	5.20 SQ	.80	.80	MO-220	MLP7X7-28-OP-01	MLP7X7-28-OP-01-B	CL-MLP7X7-15-01
7X7	32	5.20 SQ	.65	.80	MO-220	MLP7X7-32-OP-01	MLP7X7-32-OP-01-B	CL-MLP7X7-15-01
7X7	44	5.20 SQ	.50	.80	MO-220	MLP7X7-44-OP-01	MLP7X7-44-OP-01-B	CL-MLP7X7-15-01
7X7	48	5.20 SQ	.50	.80	MO-220	MLP7X7-48-OP-02	MLP7X7-48-OP-02-B	CL-MLP7X7-15-01
8X8	28	6.00 SQ	.80	.80	MO-220	MLP8X8-28-OP-01	MLP8X8-28-OP-01-B	CL-MLP8X8-15-01
8X8	32	6.00 SQ	.80	.80	MO-220	MLP8X8-32-OP-01	MLP8X8-32-OP-01-B	CL-MLP8X8-15-01
8X8	52	6.00 SQ	.50	.80	MO-220	MLP8X8-52-OP-01	MLP8X8-52-OP-01-B	CL-MLP8X8-15-01
8X8	56	6.00 SQ	.50	.80	MO-220	MLP8X8-56-OP-01	MLP8X8-56-OP-01-B	CL-MLP8X8-15-01
9X9	64	6.90 SQ	.50	.80	MO-220	MLP9X9-64-OP-01 <sup>a</sup>	MLP9X9-64-OP-01-B	CL-MLP9X9-15-01
12X12	80	9.00 SQ	.50	.80	MO-220	MLP12X12-80-OP-01 <sup>a</sup>	MLP12X12-80-OP-01B	CL-MLP12X12-15-01

NOTES: a) Under Development: Please contact SEMPAC Sales for Updates



## PRODUCT CATALOG

### Open- Pak™ TQFP / LQFP Package Configuration Options (Dimensions in Millimeters)

BODY SIZE	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
10X10	44	6.86 SQ	.80	1.14	MS-026	LQFP10X10-44-OP-01	LQFP10X10-44-OP-01-B	CL-LQFP10X10-15-01
10X10	52	6.86 SQ	.65	1.14	MS-026	LQFP10X10-52-OP-01	LQFP10X10-52-OP-01-B	CL-LQFP10X10-15-01
10X10	64	6.86 SQ	.50	1.14	MS-026	LQFP10X10-64-OP-01	LQFP10X10-64-OP-01-B	CL-LQFP10X10-15-01



## PRODUCT CATALOG

### Open- Pak™ SOIC Package Configuration Options (Dimensions in Inches)

BODY WIDTH	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
.150	8	.075X.100	.050	.055	MS-012	SOIC150-08-OP-01	SOIC150-08-OP-01-B	CL-145X185-15-01
.150	14	.075X.100	.050	.055	MS-012	SOIC150-14-OP-01	SOIC150-14-OP-01-B	CL-150X300-15-01
.150	16	.075X.120	.050	.055	MS-012	SOIC15016-OP-01	SOIC15016-OP-01-B	CL-150X300-15-01
.300	16	.150X.220	.050	.093	MS-013	SOIC300-16-OP-01	SOIC300-16-OP-01-B	CL-270X370-15-01
.300	20	.150X.220	.050	.093	MS-013	SOIC300-20-OP-01	SOIC300-20-OP-01-B	CL-270X400-15-01
.300	24	.150X.220	.050	.093	MS-013	SOIC300-24-OP-01	SOIC300-24-OP-01-B	CL-270X400-15-01
.300	28	.160X.230	.050	.093	MS-013	SOIC300-28-OP-01	SOIC300-28-OP-01-B	CL-270X400-15-01

### Open- Pak™ SSOP Package Configuration Options (Dimensions in Inches)

BODY WIDTH	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
.150	16	.070X.100	.025	.055	MO-137	SSOP150-16-OP-01	SSOP150-16-OP-01-B	CL-145X185-15-01



## PRODUCT CATALOG

### Open- Pak™ SOIC HEAT ENHANCED Package Configuration Options (Dimensions in Inches)

BODY WIDTH	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
.150	8	.075X.100	.050	.055	MS-012	SOIC150-08-OP-01H	SOIC150-08-OP-01H-B	CL-145X185-15-01
.150	14	.075X.100	.050	.055	MS-012	SOIC150-14-OP-01H	SOIC150-14-OP-01H-B	CL-150X300-15-01
.150	16	.075X.120	.050	.055	MS-012	SOIC15016-OP-01H	SOIC15016-OP-01H-B	CL-150X300-15-01
.300	16	.150X.220	.050	.093	MS-013	SOIC300-16-OP-01H	SOIC300-16-OP-01H-B	CL-270X370-15-01
.300	20	.150X.220	.050	.093	MS-013	SOIC300-20-OP-01H	SOIC300-20-OP-01H-B	CL-270X400-15-01
.300	24	.150X.220	.050	.093	MS-013	SOIC300-24-OP-01H	SOIC300-24-OP-01H-B	CL-270X400-15-01
.300	28	.160X.230	.050	.093	MS-013	SOIC300-28-OP-01H	SOIC300-28-OP-01H-B	CL-270X400-15-01

### Open- Pak™ SSOP HEAT ENHANCED Package Configuration Options (Dimensions in Inches)

BODY WIDTH	LEAD COUNT	DIE PAD SIZE	LEAD PITCH	BODY THICKNESS	JEDEC SPEC	PACKAGE PART NUMBER/DRAWING	BONDING DIAGRAM DRAWING	CERAMIC LID PART NUMBER
.150	16	.070X.100	.025	.055	MO-137	SSOP150-16-OP-01H	SSOP150-16-OP-01H-B	CL-145X185-15-01