

SPECIFICATIONS:

MATERIAL:-

INSULATOR: POLYAMIDE 9T, UL94V-0
COLOR: BLACK

CONTACT: PHOSPHOR BRONZE

FINISH:-

1.3um TIN, 2.5~4um NICKEL UNDERPLATE

FOR COMPLETE SPECIFICATION, SEE COMPONENT SPECIFICATION IF AVAILABLE.

NOTES: ALL DIMENSIONS AND NOTES MARKED * ARE CRITICAL AND MUST BE CHECKED IN ACCORDANCE WITH QUALITY DOC. Q1-02A

TOLERANCES
X.X = ±0.25mm
X.XX = ±0.13mm

RECOMMENDED PCB LAYOUT

M/H	TYPE	H	J	K
2.0	01		1.62	
2.5		05		2.6
3.0	02		2.00	
3.5				
4.0				
5.0				
6.0	04	1.00	3.00	2.6
7.0				
8.0				
9.0				
10.0				
11.0				
4.5				
5.5				
6.5				
7.5				
8.5	05	1.50	3.50	3.6
9.5				
10.5				
11.5				
12.0				
13.0				
14.0	06	7.00	10.00	2.54
15.0				
16.0				
17.0				
12.5				
13.5				
14.5				
15.5	07	7.50	10.50	2.54
16.5				
17.5				

TOTAL NO. OF WAYS	A	B	C	D
10	2.0	5.0	4.0	2.5
12	2.5	5.5	4.5	3.0
14	3.0	6.0	5.0	3.5
16	3.5	6.5	5.5	4.0
18	4.0	7.0	6.0	4.5
20	4.5	7.5	6.5	5.0
22	5.0	8.0	7.0	5.5
24	5.5	8.5	7.5	6.0
26	6.0	9.0	8.0	6.5
28	6.5	9.5	8.5	7.0
30	7.0	10.0	9.0	7.5
32	7.5	10.5	9.5	8.0
34	8.0	11.0	10.0	8.5
36	8.5	11.5	10.5	9.0
38	9.0	12.0	11.0	9.5
40	9.5	12.5	11.5	10.0
42	10.0	13.0	12.0	10.5
44	10.5	13.5	12.5	11.0
46	11.0	14.0	13.0	11.5
48	11.5	14.5	13.5	12.0
50	12.0	15.0	14.0	12.5
52	12.5	15.5	14.5	13.0
54	13.0	16.0	15.0	13.5
56	13.5	16.5	15.5	14.0
58	14.0	17.0	16.0	14.5
60	14.5	17.5	16.5	15.0

TOTAL NO. OF WAYS	A	B	C	D
62	15.0	18.0	17.0	15.5
64	15.5	18.5	17.5	16.0
66	16.0	19.0	18.0	16.5
68	16.5	19.5	18.5	17.0
70	17.0	20.0	19.0	17.5
72	17.5	20.5	19.5	18.0
74	18.0	21.0	20.0	18.5
76	18.5	21.5	20.5	19.0
78	19.0	22.0	21.0	19.5
80	19.5	22.5	21.5	20.0
82	20.0	23.0	22.0	20.5
84	20.5	23.5	22.5	21.0
86	21.0	24.0	23.0	21.5
88	21.5	24.5	23.5	22.0
90	22.0	25.0	24.0	22.5
92	22.5	25.5	24.5	23.0
94	23.0	26.0	25.0	23.5
96	23.5	26.5	25.5	24.0
98	24.0	27.0	26.0	24.5
100	24.5	27.5	26.5	25.0
110	27.0	30.0	29.0	27.5
120	29.5	32.5	31.5	30.0
130	32.0	35.0	34.0	32.5
140	34.5	37.5	36.5	35.0
150	37.0	40.0	39.0	37.5
160	39.5	42.5	41.5	40.0

Allan	13	11.09.09	A235
Allan	12	21.08.09	A231
Allan	11	06.08.09	A227
Allan	10	27.08.08	A158
Allan	9	27.06.08	A137
Allan	8	04.03.08	A116

NAME	ISS.	DATE	C/NOTE
------	------	------	--------

APPROVED: _____
CHECKED: *Paul*

DRAWN: Allan

CUSTOMER REF.:

ASSEMBLY DRG:

ORDER CODE
M402VM-3- XXX - XX NR
TOTAL NO. OF PINS $\sqrt{13}$ TYPE (REFER TO TABLE)

HARWIN

HARWIN USA
TEL: 603 893 5376
FAX: 603 893 5396
mis@harwin.com

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FAX: 023 9231 4590
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HARWIN Asia
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FAX: +65 6 779 3868
mis@harwin.com.sg

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TOLERANCES
X. = ±1mm
X.X = ±0.25mm
X.XX = ±0.10mm
X.XXX = ±0.01mm
ANGLES = ±5°
UNLESS STATED

MATERIAL: SEE NOTES
FINISH: SEE NOTES
S/AREA: mm²

TITLE:
M402V SERIES 0.5 BOARD TO BOARD SMT V/T TYPE MALE
DRAWING NUMBER:
M402VM-3- XXX - XX NR
SHT 1 OF 3

TOTAL NO. OF WAYS	TYPE	3						⚠
		01	02	04	05	06	07	
10		●	●	●	●	○	○	⚠
12		●	●	●	●	○	○	⚠
14		●	●	●	●	○	○	⚠
16		●	●	●	○	○	○	⚠
18		○	○	●	●	○	○	⚠
20		●	●	●	○	○	○	⚠
22		○	●	●	○	○	○	⚠
24		●	●	●	●	○	○	⚠
26		●	○	●	●	○	○	⚠
28		●	●	●	●	○	○	⚠
30		●	●	●	●	●	○	⚠
32		●	●	●	○	○	○	⚠
34		●	●	○	●	○	○	⚠
36		●	●	●	○	○	○	⚠
38	12	○	○	●	○	○	○	⚠
40		●	●	●	●	○	○	⚠
42		○	○	○	○	○	○	⚠

TOTAL NO. OF WAYS	TYPE	11						⚠
		01	02	04	05	06	07	
44		●	○	○	●	○	○	⚠
46	13	○	○	●	●	○	○	⚠
48		○	○	○	○	○	○	⚠
50		●	●	●	●	○	○	⚠
52		○	○	○	●	○	○	⚠
54		○	○	○	○	○	○	⚠
56		○	○	○	○	○	○	⚠
58		○	○	○	○	○	○	⚠
60		●	●	●	●	○	○	⚠
62		○	○	○	○	○	○	⚠
64		○	○	○	○	○	○	⚠
66		○	○	○	○	○	○	⚠
68		○	○	●	●	○	○	⚠
70		○	●	○	○	○	○	⚠
72		○	○	○	○	○	○	⚠
74		○	○	○	○	○	○	⚠
76		○	○	○	○	○	○	⚠

TOTAL NO. OF WAYS	TYPE	11						⚠
		01	02	04	05	06	07	
78		○	○	○	○	○	○	⚠
80		●	●	●	●	○	○	⚠
82		○	○	○	○	○	○	⚠
84		○	○	○	○	○	○	⚠
86		○	○	○	○	○	○	⚠
88		○	○	○	○	○	○	⚠
90		○	○	○	○	●	○	⚠
92		○	○	○	○	○	○	⚠
94		○	○	○	○	○	○	⚠
96		○	○	○	○	○	○	⚠
98		○	○	○	○	○	○	⚠
100		○	○	○	○	○	○	⚠ 8 10
110		○	○	○	○	○	○	⚠
120		○	○	○	○	○	○	⚠
130		○	○	○	○	○	○	⚠
140		○	○	○	○	○	○	⚠
150		○	○	○	○	○	○	⚠
160		○	○	○	○	○	○	⚠

● - MOULDS AVAILABLE
 ○ - MOULDS UPON REQUEST.
 PLEASE REFER TECHNICAL SALES

Allan	13	11.09.09	A235
Allan	12	21.08.09	A231
Allan	11	06.08.09	A227
Allan	10	27.08.08	A158
Allan	9	27.06.08	A137
Allan	8	04.03.08	A116

NAME	ISS.	DATE	C/NOTE
------	------	------	--------

APPROVED: _____
 CHECKED: *Ben*

ORDER CODE
M402VM-3- XXX - XX NR
 TOTAL NO. OF PINS \triangle TYPE (REFER TO TABLE)

DRAWN: Allan
 CUSTOMER REF.:
 ASSEMBLY DRG:



HARWIN USA
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 mis@harwin.com

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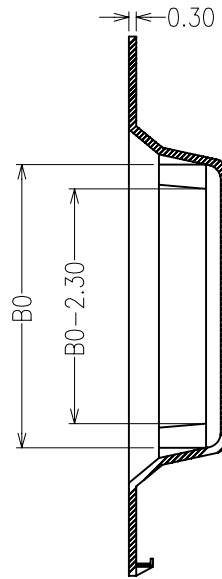
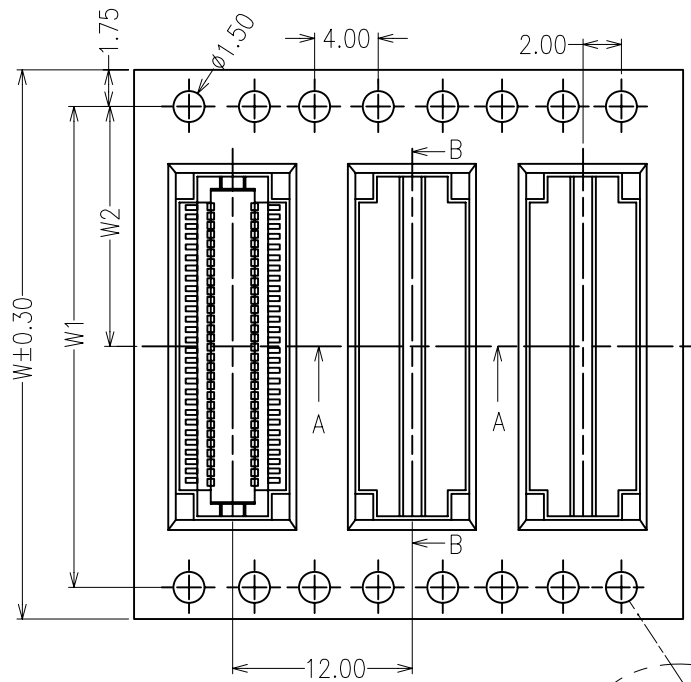
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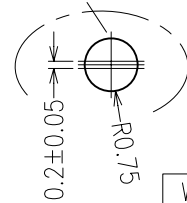
TOLERANCES
 X. = ±1mm
 X.X = ±0.25mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL: SEE NOTES
 FINISH: SEE NOTES
 S/AREA: mm²

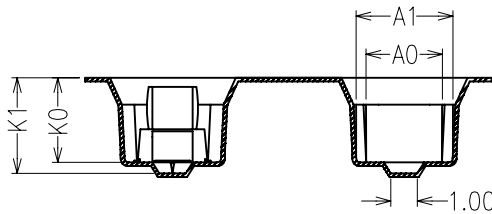
TITLE:
M402V SERIES 0.5 BOARD TO BOARD SMT V/T TYPE MALE
 DRAWING NUMBER:
M402VM-3- XXX - XX NR
 SHT 2 OF 3



SECTION B-B



W	W1	W2
16		7.50
24		11.50
32	28.40	14.20
44	40.40	20.20
56	52.40	26.20



SECTION A-A

NOTES:

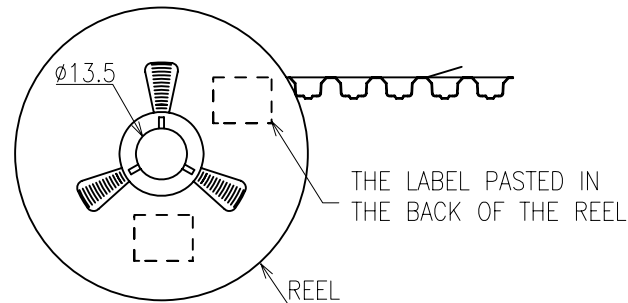
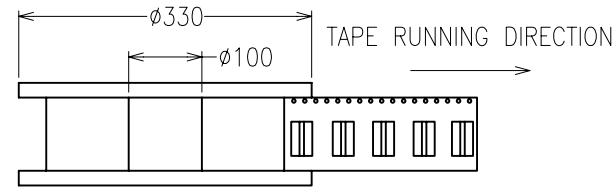
- 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ± 0.20
- CARRIER CAMBER IS WITHIN 1MM IN 250MM
- MATERIAL: BLACK CONDUCTIVE POLYSTYRENE ALLOY

CKT	10	14	18	22	26	30	34	38	42	46
PIN	10 12	14 16	18 20	22 24	26 28	30 32	34 36	38 40	42 44	46 48
W	016	016	016	016	024	024	024	024	024	024
B0	5.75	6.75	7.75	8.75	9.75	10.75	11.75	12.75	13.75	14.75

CKT	50	54	58	62	66	70	74	78	82	86
PIN	50 52	54 56	58 60	62 64	66 68	70 72	74 76	78 80	82 84	86 88
W	024	032	032	032	032	032	044	044	044	044
B0	15.75	16.75	17.75	18.75	19.75	20.75	21.75	22.75	23.75	24.75

CKT	90	94	98	B0	C0	D0	E0	F0	G0
PIN	90 92	94 96	98 A0	B0	C0	D0	E0	F0	G0
W	044	044	044	044	056	056	056	056	056
B0	25.75	26.75	27.75	30.25	32.75	35.25	37.75	40.25	42.75

ITEM	A0	A1	K0	K1	PITCH	PCS/REEL
DIM	4.30	6.00	3.30	3.90	12.00	1500



Allan	13	11.09.09	A235
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Allan	9	27.06.08	A137
Allan	8	04.03.08	A116

NAME	ISS.	DATE	C/NOTE

APPROVED: _____

CHECKED: *Poon*

DRAWN: Htut htut

CUSTOMER REF.: _____

ASSEMBLY DRG: _____

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TOLERANCES
X. = ± 1 mm
X.X = ± 0.20 mm
X.XX = ± 0.10 mm
X.XXX = ± 0.01 mm
ANGLES = $\pm 0^{\circ}30'$
UNLESS STATED

MATERIAL: SEE NOTES
FINISH: SEE NOTES
S/AREA: mm²

TITLE: M402V SERIES 0.5 BOARD TO BOARD SMT V/T TYPE MALE
DRAWING NUMBER: M402VM-3- XXX - XX NR
SHT 3 OF 3