

SPECIFICATIONS:

MATERIAL:-

INSULATOR: LCP E130i, UL94V-0

COLOR: BLACK

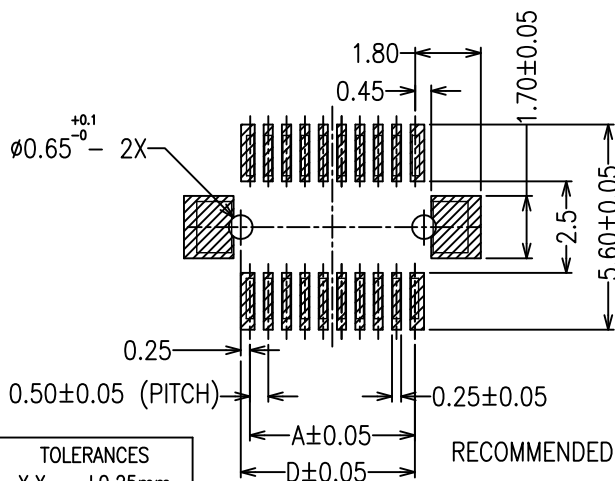
CONTACT: PHOSPHOR BRONZE

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



RECOMMENDED PCB LAYOUT

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

M/H	TYPE	H	J	K	L					
3.5	04,A4	1.00	3.00	2.6	1.5					
4.0										
5.0										
6.0										
7.0										
8.0										
9.0										
10.0										
11.0										
11.0						05	1.50	3.50	2.6	1.5
4.5										
5.5										
6.5										
7.5										
8.5										
9.5										
10.5										
11.5										
12.0	06,46	7.00	10.00	2.54	2.6					
13.0										
14.0										
15.0										
16.0										
17.0										
17.5										
12.5						07	7.50	10.50	2.54	2.6
13.5										
14.5										
15.5										
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

Leo	15	01.04.16	A482
Leo	14	01.03.16	A478
MSP	13	19.11.14	12693
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
Allan	7	18.12.07	A099
Allan	6	30.10.07	A087
Allan	5	15.10.07	A085
Allan	4	03.10.07	A080
Allan	3	06.08.07	A066
Allan	2	15.03.07	A025
Allan	1	25.08.06	---

NAME	ISS.	DATE	C/NOTE
APPROVED:	B.Lim		
CHECKED:	D.P		
DRAWN:	Leo		
CUSTOMER REF.:			
ASSEMBLY DRG:			

APPROVED:	B.Lim
-----------	-------

CHECKED:	D.P
----------	-----

DRAWN:	Leo
--------	-----

CUSTOMER REF.:	
----------------	--

ASSEMBLY DRG:	
---------------	--

ORDER CODE

M402VM-3- XXX - XX NR

TOTAL NO. OF WAYS

TYPE

(REFER TO TABLE)

NOTE:

- CONTACT TECHNICAL SALES FOR ALTERNATIVE OPTION
- FOR MOULDS AVAILABILITY, PLEASE REFER TO PG 2/3

HARWIN

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

HARWIN Europe (UK)
TEL: 023 9231 4545
FAX: 023 9231 4590
mis@harwin.co.uk

HARWIN Asia
TEL: +65 6 779 4909
FAX: +65 6 779 3868
mis@harwin.com.sg

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

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:

mm?

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	01	02	04	05	06	07
10	●	●	●	●	⊗	⊗
12	●	●	●	●	⊗	⊗
14	●	●	●	●	⊗	⊗
16	●	●	●	⊗	⊗	⊗
18	⊗	⊗	●	●	⊗	⊗
20	●	●	●	⊗	⊗	⊗
22	⊗	●	●	⊗	⊗	⊗
24	●	●	●	●	⊗	⊗
26	●	⊗	●	●	⊗	⊗
28	●	●	●	●	⊗	⊗
30	●	●	●	●	●	⊗
32	●	●	●	⊗	⊗	⊗
34	●	●	⊗	●	⊗	⊗
36	●	●	●	⊗	⊗	⊗
38	⊗	⊗	●	⊗	⊗	⊗
40	●	●	●	●	●	⊗
42	⊗	⊗	⊗	⊗	⊗	⊗

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

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

- - MOULDS AVAILABLE
○ - MOULDS UPON REQUEST.
PLEASE REFER TECHNICAL SALES
X - OBSOLETE ITEMS

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

Leo	15	01.04.16	A482
Leo	14	01.03.16	A478
MSP	13	19.11.14	12693
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
Allan	7	18.12.07	A099
Allan	6	30.10.07	A087
Allan	5	15.10.07	A085
Allan	4	03.10.07	A080
Allan	3	06.08.07	A066
Allan	2	15.03.07	A025
Allan	1	25.08.06	---

NAME	ISS.	DATE	C/NOTE
APPROVED:		B.Lim	
CHECKED:		D.P	
DRAWN:		Leo	
CUSTOMER REF.:			
ASSEMBLY DRG:			

ORDER CODE

M402VM-3- XXX - XX NR

TOTAL NO. OF WAYS

TYPE

(REFER TO TABLE)

HARWIN

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

HARWIN Europe (UK)
TEL: 023 9231 4545
FAX: 023 9231 4590
mis@harwin.co.uk

HARWIN Asia
TEL: +65 6 779 4909
FAX: +65 6 779 3868
mis@harwin.com.sg

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

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:

mm?

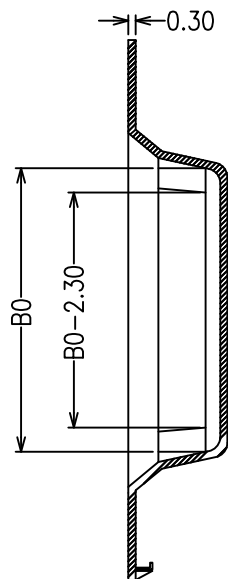
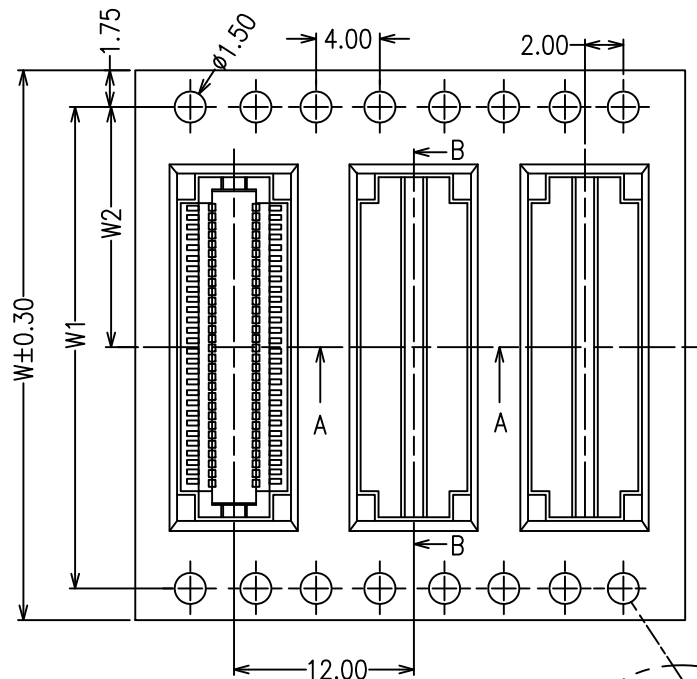
TITLE:

M402V SERIES 0.5 BOARD TO BOARD
SMT V/T TYPE MALE

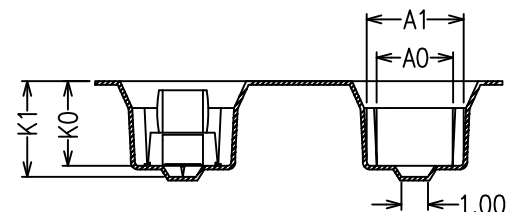
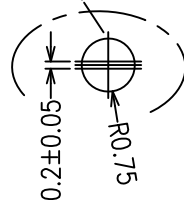
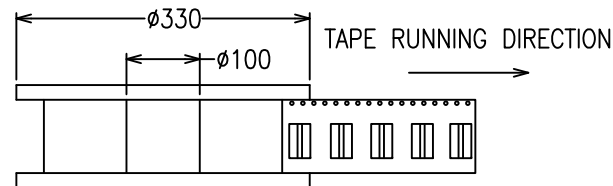
DRAWING NUMBER:

M402VM-3- XXX - XX NR

SHT
2
OF
3



SECTION B-B

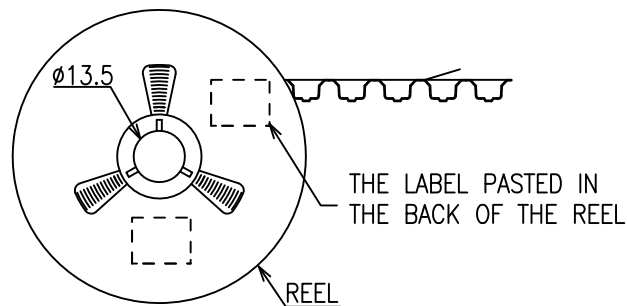


SECTION A-A

NOTES:

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

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



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

Leo	15	01.04.16	A482
Leo	14	01.03.16	A478
MSP	13	19.11.14	12693
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
Allan	7	18.12.07	A099
Allan	6	30.10.07	A087
Allan	5	15.10.07	A085
Allan	4	03.10.07	A080
Allan	3	06.08.07	A066
Htut	2	14.03.07	A025

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

APPROVED: B.Lim

CHECKED: D.P

DRAWN: Leo

CUSTOMER REF.:

ASSEMBLY DRG.:

HARWIN

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

HARWIN Europe (UK)
TEL: 023 9231 4545
FAX: 023 9231 4590
mis@harwin.co.uk

HARWIN Asia
TEL: +65 6 779 4909
FAX: +65 6 779 3868
mis@harwin.com.sg

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

TOLERANCES

X. = ± 1 mm
X.X = ± 0.20 mm
X.XX = ± 0.10 mm
X.XXX = ± 0.01 mm

ANGLES = $\pm 0'30''$
UNLESS STATED

MATERIAL:

SEE NOTES

FINISH:

SEE NOTES

S/AREA:

mm?

TITLE:

M402V SERIES 0.5 BOARD TO BOARD
SMT V/T TYPE MALE

DRAWING NUMBER:

M402VM-3- XXX - XX NR

SHT
3
OF
3