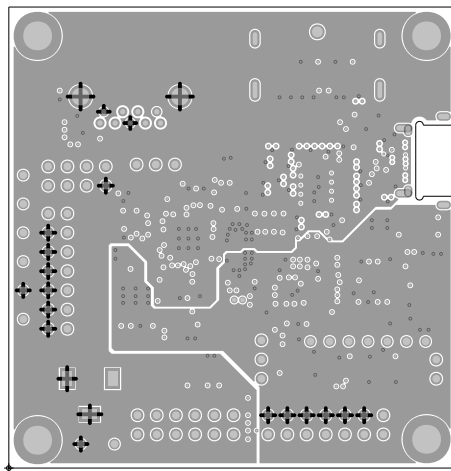

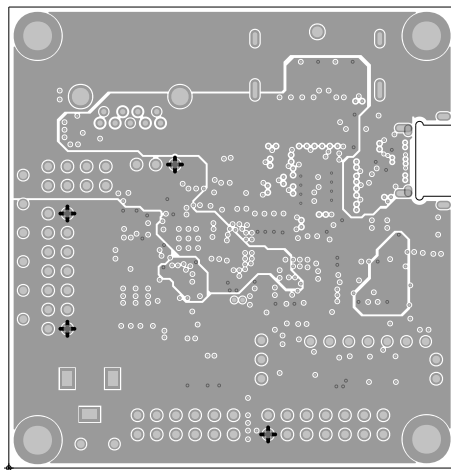

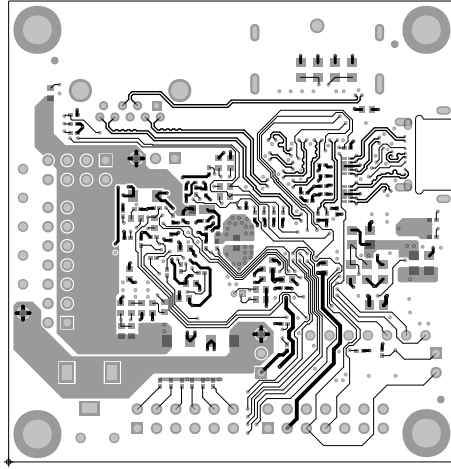
	LAYER: 01 PRIMARY-SIDE	COMPANY NAME: ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
	DESIGNER: PTEC	PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		
	CHECKER: ROHM SEMICONDUCTOR	PROJECT NUMBER:		TOLERANCES DECIMAL ANGLE X ± .1 ± 30 XX ± .03 MACH FINISH XXX ± .010 ✓
	DATE: 2016-03-18	NUMBER		
	JOB#:	REV. 04		



	L2_GND	COMPANY NAME: ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMAL ANGLE X ± .1 ± 30 XX ± .03 MACH FINISH XXX ± .010 ✓
	DESIGNER: PTEC	PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		
	CHECKER: ROHM SEMICONDUCTOR	PROJECT NUMBER: NUMBER		REV. 04
	DATE: 2016-03-18			
	JOB#:			



	L3_PWR	COMPANY NAME: ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
	DESIGNER: PTEC	PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		
	CHECKER: ROHM SEMICONDUCTOR			TOLERANCES DECIMAL ANGLE X ± .1 ± 30 XX ± .03 MACH FINISH XXX ± .010 ✓
	DATE: 2016-03-18	PROJECT NUMBER: NUMBER		
	JOB#:			
		REV. 04		



ROHM
SEMICONDUCTOR

LAYER: 04
SECONDARY-SIDE

DESIGNER: PTEC
CHECKER: ROHM SEMICONDUCTOR

DATE: 2018-03-18

JOB#:

NUMBER

04
REV.

PROJECT NUMBER:

EVALS PN: BM25170-DEVICE-EVK-101

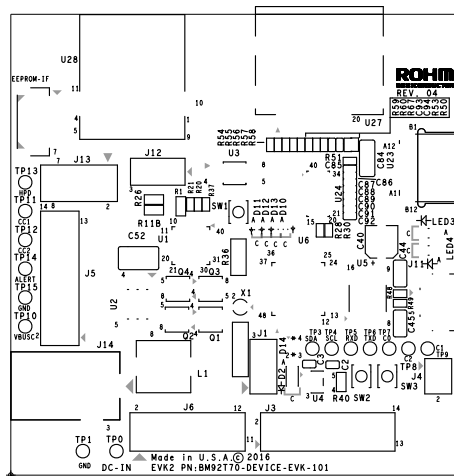
PROJECT NAME:

ROHM SEMICONDUCTOR USA

COMPANY NAME:

ARE IN INCHES
SPECIFIED DIMENSIONS
UNLESS OTHERWISE

TOLERANCES
DECIMAL
X ± .1
X ± .30
XX ± .03
XXX ± .010
MACH FINISH
✓



ROHM
SEMICONDUCTOR

SILKSCREEN
PRIMARY-SIDE

DESIGNER: PTEC

CHECKER: ROHM SEMICONDUCTOR

DATE: 2016-03-18

JOB#:

COMPANY NAME:

ROHM SEMICONDUCTOR USA

PROJECT NAME:

EVK2 PN:BM92T70-DEVICE-EVK-101

PROJECT NUMBER:

NUMBER

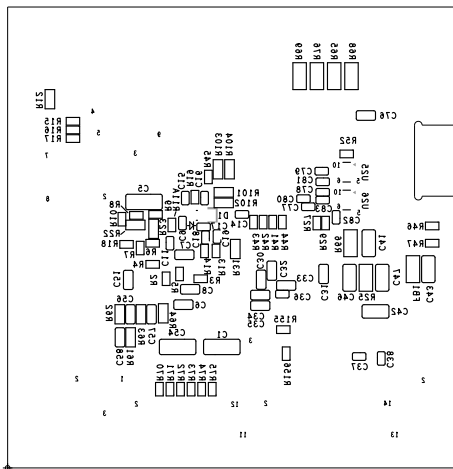
REV.


04

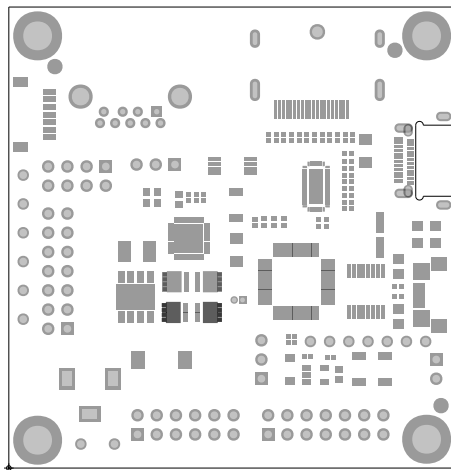
UNLESS OTHERWISE
SPECIFIED DIMENSIONS
ARE IN INCHES


TOLERANCES

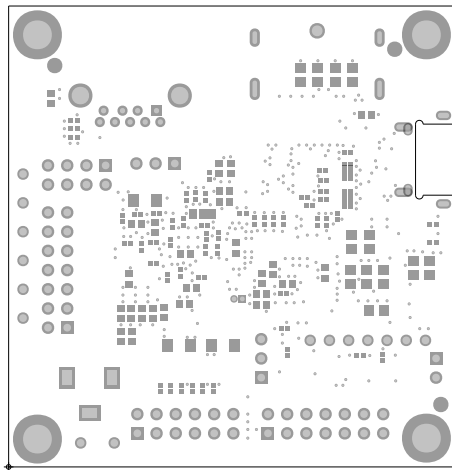
DECIMAL	ANGLE
X ± .1	± 30
XX ± .03	MACH FINISH
XXX ± .010	✓




	JOB#:		DATE: 2018-03-18	CHECKER: ROHM SEMICONDUCTOR	DESIGNER: PTEC	SECONDARY-SIDE	SILKSCREEN	COMPANY NAME:
	NUMBER		PROJECT NUMBER:	EVS PN: 8M5210-DEVICE-EVK-101		PROJECT NAME:		ROHM SEMICONDUCTOR USA
	REV. 04							
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMAL ANGLES XXX ±.010 MACH XXX ±.03 XXX ±.010 MACH XXX ±.03							

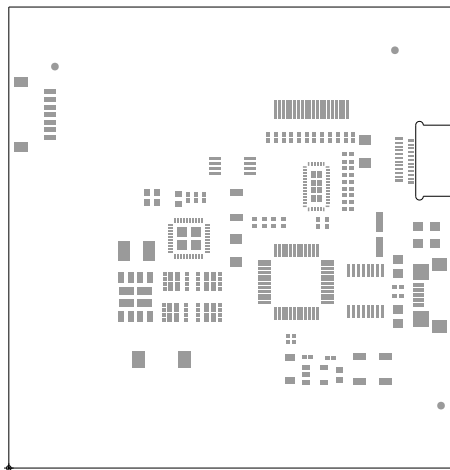



	SOLDERMASK PRIMARY-SIDE	COMPANY NAME: ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMAL ANGLE X ± .1 ± 30 XX ± .03 MACH FINISH XXX ± .010 ✓
	DESIGNER: PTEC	PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		
	CHECKER: ROHM SEMICONDUCTOR	PROJECT NUMBER:		
	DATE: 2016-03-18	NUMBER		
	JOB#:	REV. 04		



ROHM
SEMICONDUCTOR

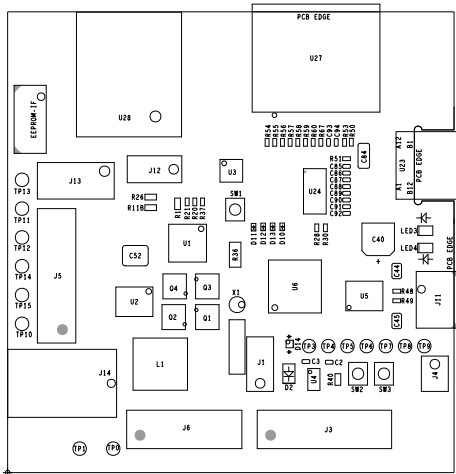
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		NUMBER		PROJECT NUMBER:		REV. 04		EVKS PN: BM82S170-DEVICE-EVK-101		PROJECT NAME:		ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
								TOLERANCES		DECIMAL X ± .1		ANGLE ± 30		HATCH FINISH XX ± .03	
		✓													



	PASTEMASK PRIMARY-SIDE	COMPANY NAME: ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMAL ANGLE X ± .1 ± 30 XX ± .03 MACH FINISH XXX ± .010 ✓
	DESIGNER: PTEC	PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		
	CHECKER: ROHM SEMICONDUCTOR	PROJECT NUMBER:		
	DATE: 2016-03-18	NUMBER		
	JOB#:	REV. 04		



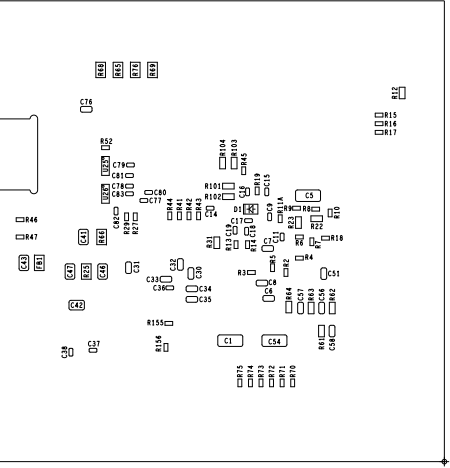
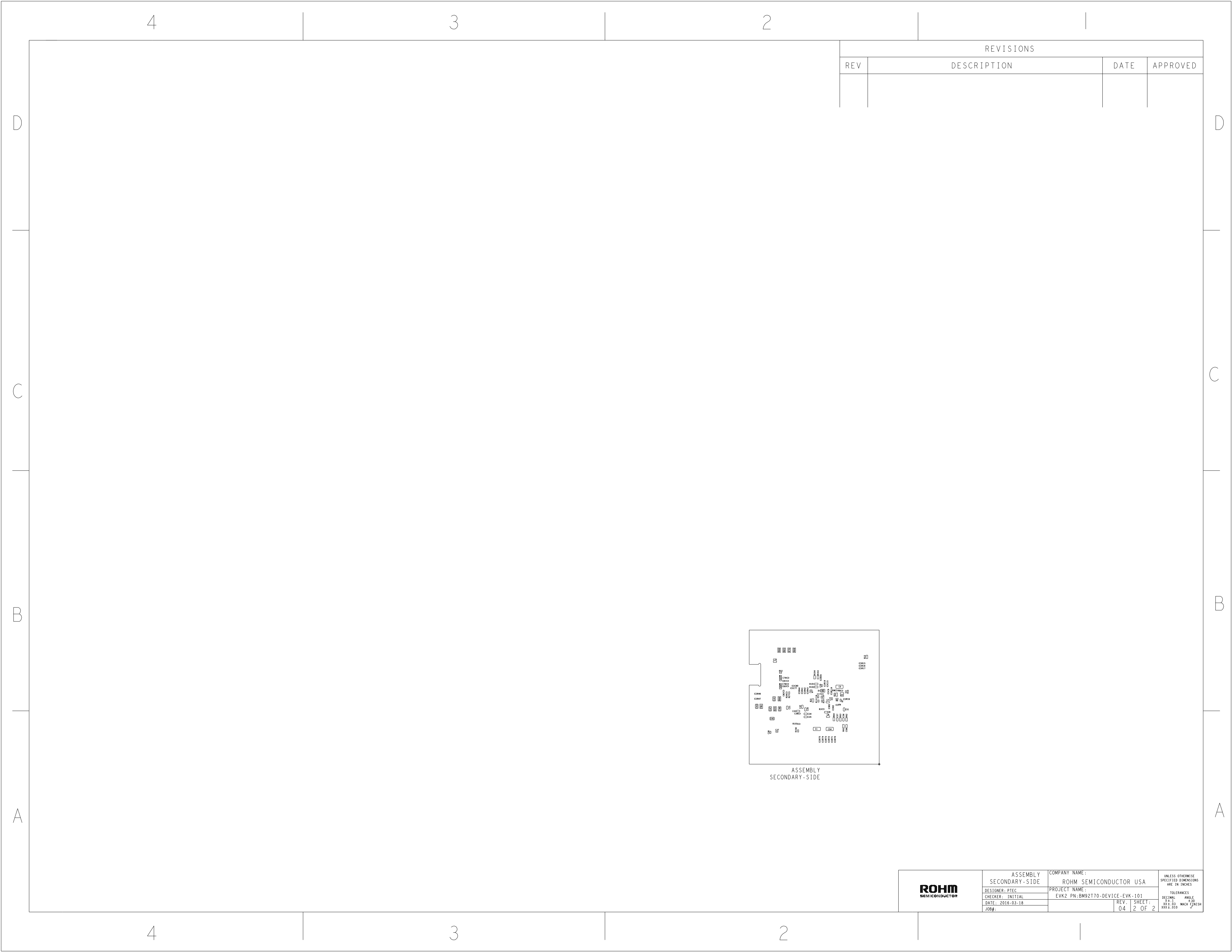
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</div> <div>TOLERANCES</div> <div>DECIMAL X ± .1</div> <div>ANGLE ± 30</div> <div>WACH ± .03</div> <div>FINISH XXX ± .010</div> <div>✓</div>		COMPANY NAME: ROHM SEMICONDUCTOR USA		PASTEMASK SECONDARY-SIDE		<div>ROHM SEMICONDUCTOR</div>
		PROJECT NAME: EVKS PN: BM82S170-DEVICE-EVK-101		DESIGNER: PTEC		
		PROJECT NUMBER: REV. 04		CHECKER: ROHM SEMICONDUCTOR		
		NUMBER		DATE : 2018-03-18		
				JOB# :		




ASSEMBLY
PRIMARY-SIDE

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

	ASSEMBLY TOP		COMPANY NAME : ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
	DESIGNER: PTEC		PROJECT NAME : EVK2 PN:BM92T70-DEVICE-EVK-101			
	CHECKER: INITIAL		ASSEMBLY NUMBER: NUMBER		TOLERANCES	
	DATE: 2016-03-18		REV. SHEET: 04 1 OF 1		DECIMAL ANGLES	
	JOB#:				X ± .1 X ± .03 X ± .010 XX ± .010 MACH 25 HSK	



ASSEMBLY
SECONDARY-SIDE

	ASSEMBLY SECONDARY-SIDE		COMPANY NAME : ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
	DESIGNER: PTEC		PROJECT NAME :			
	CHECKER: INITIAL		EVK2 PN:BM92T70-DEVICE-EVK-101			
	DATE: 2016-03-18		REV.	SHEET:		TOLERANCES
	JOB#:		04	2 OF 2		DECIMAL ANGLES X ± .030 X ± .010 MACH 1/32 IN XXX ± .010

DECIMAL	ANGLE
XX ± .01	MAC ± .01

D

C

B

A

LAYER STACKING DETAIL

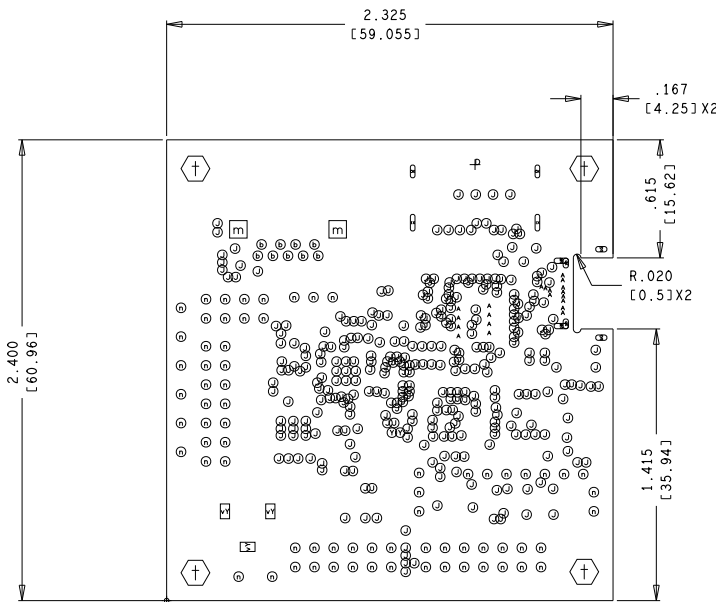
Ref. Layer	Layer #	Layer Type	Copper Weight (Oz)	Copper Thickness (Mils)	Material Type - Ply	Dielectric Thickness (Mils)	Finished Line (Mils)	Diff. Gap (Mils)	Required Impedance (Ohms)
Solder Mask				1.2					
Plating				1.2					
2	1	TOP	0.5	0.7			7	7	85
					Prepreg	4.4			
	2	GND	1	1.4					
					Core	47			
	3	PWR	1	1.4					
					Prepreg	4.4			
3	4	BOT	0.5	0.7			7	7	85
Plating				1.2					
Solder Mask				1.2					

Total Overall Thickness: 64.8 +/- 10%
Material Type FR4

DRILL CHART: TOP to BOTTOM

ALL UNITS ARE IN MILS

FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	8.0	+0.0/-8.0	PLATED	20
⊙	10.0	+3.0/-3.0	PLATED	331
⊙	25.0	+3.0/-3.0	PLATED	2
⊙	28.0	+3.0/-3.0	PLATED	9
⊙	40.0	+3.0/-3.0	PLATED	71
Ⓜ	91.0	+3.0/-3.0	PLATED	2
Ⓢ	150.0	+3.0/-3.0	PLATED	4
⦶	56.0	+2.0/-2.0	NON-PLATED	1
⊗	51.181x27.559	+3.0/-3.0	PLATED	2
⊗	59.0x28.0	+3.0/-3.0	PLATED	2
⊗	67.0x24.0	+3.0/-3.0	PLATED	2
⊗	74.803x27.559	+3.0/-3.0	PLATED	2
Ⓜ	77.0x48.0	+3.0/-3.0	PLATED	2
Ⓜ	77.0x48.0	+3.0/-3.0	PLATED	1
Ⓜ	87.0x24.0	+3.0/-3.0	PLATED	2



FAB NOTE

REVISIONS

REV	DESCRIPTION	DATE	APPROVED

NOTES:

- Specifications.
 - Fabricate IAW IPC600, latest revision.
 - Producibility study - It is the responsdibility of the supplier to conduct a thorough review of the artwork and media for manufacturability in the supplier's process compliance to all applicable specifications. Customer must be advised in writing (in advance of manufacturing) of any changes, revisions, or corrections made or recommendations to ensure conformance to standards, and of any specifications that cannot be met.
 - This drawing is to be used in conjunction with the provided gerber and drill data when applicable.
 - All notes are "Unless Otherwise Specified."
- Material
 - FR4.
 - Color to be opaque.
- Soldermask

Solder mask both sides with (green color) liquid photoimageable soldermask, 003 max. thickness.
Soldermask over bare copper.
Soldermask is allowed in via holes.
- Drilling
 - All hole diameters are finished sizes.
 - All hole to be +/- .003 from true position unless otherwise specified.
 - All hole diameters to be +/- .003 unless otherwise specified.
 - An NC drill file has been supplied - see drill table.
- Finish
 - Plate thru with copper .0010 min to .002 max. thickness drill size dimension apply after plating.
 - Use gold immersion over nickel.
 - Finished boards shall not have nicks, scratches, voids, exposed copper, poor plating, all misdrilled holes.
- Silkscreen
 - Silkscreen using white non-conductive epoxy or equivalent (both sides).
 - No silkscreen allowed on exposed lands.
 - Silkscreen must be a minimum of 3mm away form fiducial marks.
 - Minimum clearance between silkscreen legend and vias, pads, or holes to be .005.
 - Silkscreen is allowed in via holes.
- Electrical Test
 - All boards shall be 100% electrically tested for opens/short at 10 volts. MIL-SPEC boards to be tested at 40 volts.
 - Apply test stamp in non-legend area on solder side of PCB.
 - Test is required on both sides of the board.
- Cleanliness
 - Boards shall be free of fiber glass dust or any other foreign material.
 - Finished boards must conform to 0.01 MG/IN max NaCl ionic contamination as meaxured by the omega meter 600SMD.
- Packaging

There shall be a max of 25 units per package, individually wrapped, and shipped in cardboard cratons with sufficient surrounding material to prevent shipping damage.
- Bow and Twist

Bow and twist to be .007 IN/IN or .090 max according to IPC-A-600D.
- Inspection
 - Automatic optical inspection of all layers required.
 - The impedance should be controlled by stackup layer.
- Inside corners should be rounded-off
- Changes to board geometries and apertures are not allowed unless they are approved by customer.
- Rounding is allowed on 90 degree corners with the size of standard routing bit.

D

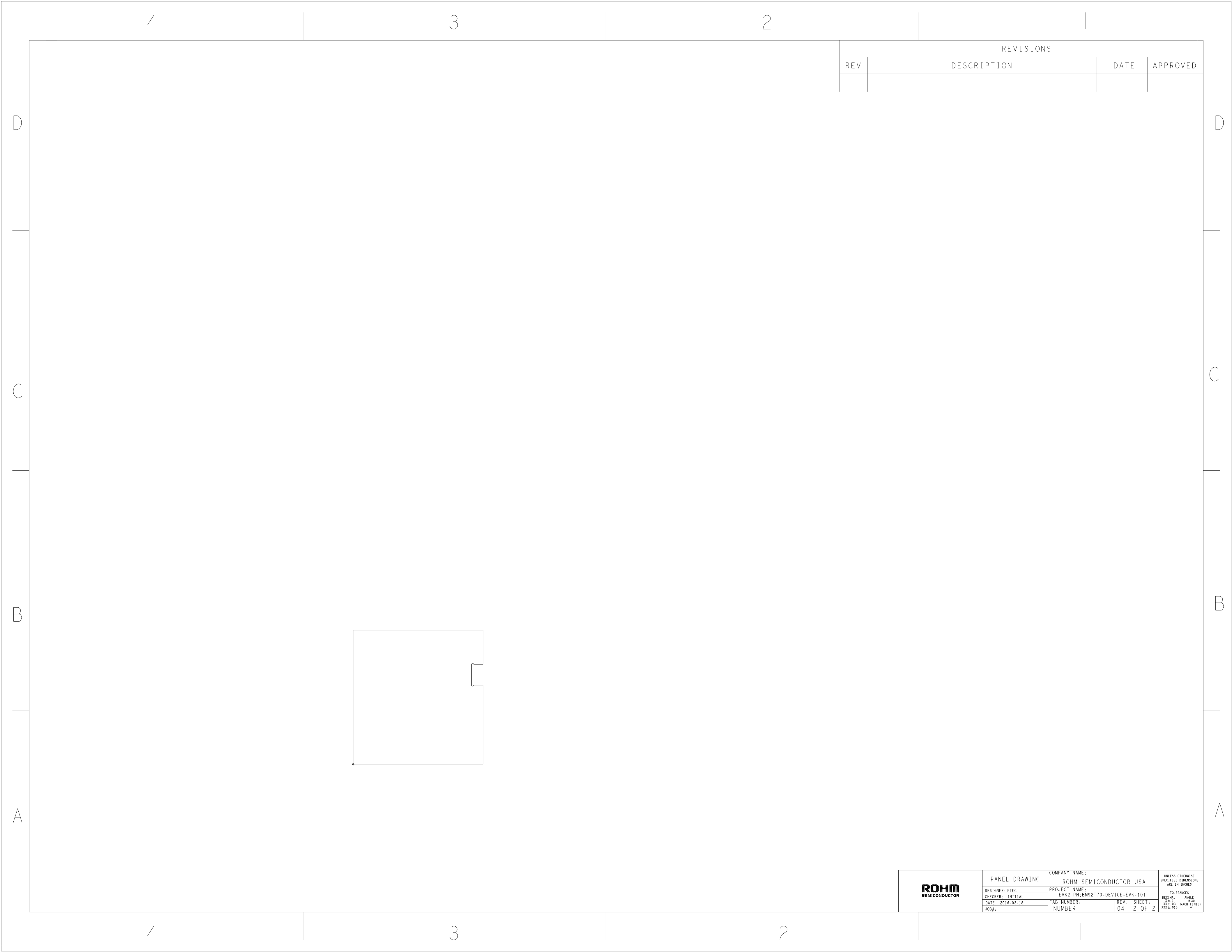
C

B

A

ROHM
SEMICONDUCTOR

FAB DRAWING		ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
DESIGNER: PTEC		PROJECT NAME: EVK2 PN:BM92T70-DEVICE-EVK-101		TOLERANCES	
CHECKER: INITIAL		FAB NUMBER:		DECIMAL	
DATE: 2016-03-18		NUMBER		X ± .1	
JOB#:		REV. 04		X ± .03	
		SHEET: 1 OF 2		XXX ± .010	
				ANGLE ± 30	
				MACH FINISH ✓	



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

	PANEL DRAWING		COMPANY NAME : ROHM SEMICONDUCTOR USA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
	DESIGNER: PTEC		PROJECT NAME : EVK2 PN:BM92T770-DEVICE-EVK-101			
	CHECKER: INITIAL		FAB NUMBER:		REV. 04	SHEET: 2 OF 2
	DATE: 2016-03-18		NUMBER			
	JOB#:					

TOLERANCES
DECIMALS ANGLE
XX ± .03 MAC ± .010

±.00
±.03
MAC ±.010

✓