



AKM Semiconductor, Inc.

Product Change Notice

Document ID : AKMSPK170921A
 Product affected : AK4103AVF and AK4121AVF (VSOP-24 Package)
 Date of notification : 9/21/2017
 Type of change : Assembly site
 Reason for change : Closure of current assembly line

Description of change:

Asahi Kasei Microdevices Corp. (AKM) will transfer assembly process for the products which are currently assembled by one of our package vendors, Kato Electric Yamanashi plant due to its assembly line closure. Detailed information on schedule and new assembly site are attached to this notice. There is no change with customer ordering part number.

Affected Product and Schedule of New Part

Part Number	Package	Current Assembly Site	New Assembly Site	Last Time Buy	Sample Availability of New Part	Full Qualification of New Part	Customer Approval of New Part	Mass Production Start of New Part	Closure of Current Assembly Line
AK4103AVF	VSOP-24	KATOH Electric Co., Ltd. Yamanashi factory	J-Device Fukuoka	11/30/2017	2/28/2018	4/30/2018	by 9/30/2018	October-18	January-18
AK4121AVF	VSOP-24	KATOH Electric Co., Ltd. Yamanashi factory	J-Device Fukuoka	11/30/2017	2/28/2018	4/30/2018	by 9/30/2018	October-18	January-18

Comparison of current and new part

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AKM will consider this notice fully noticed and approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice.

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Comparison Chart (VSOP-24)

Changes are highlighted in yellow.

1 Affected Part Number

AK4103AVF
AK4121AVF

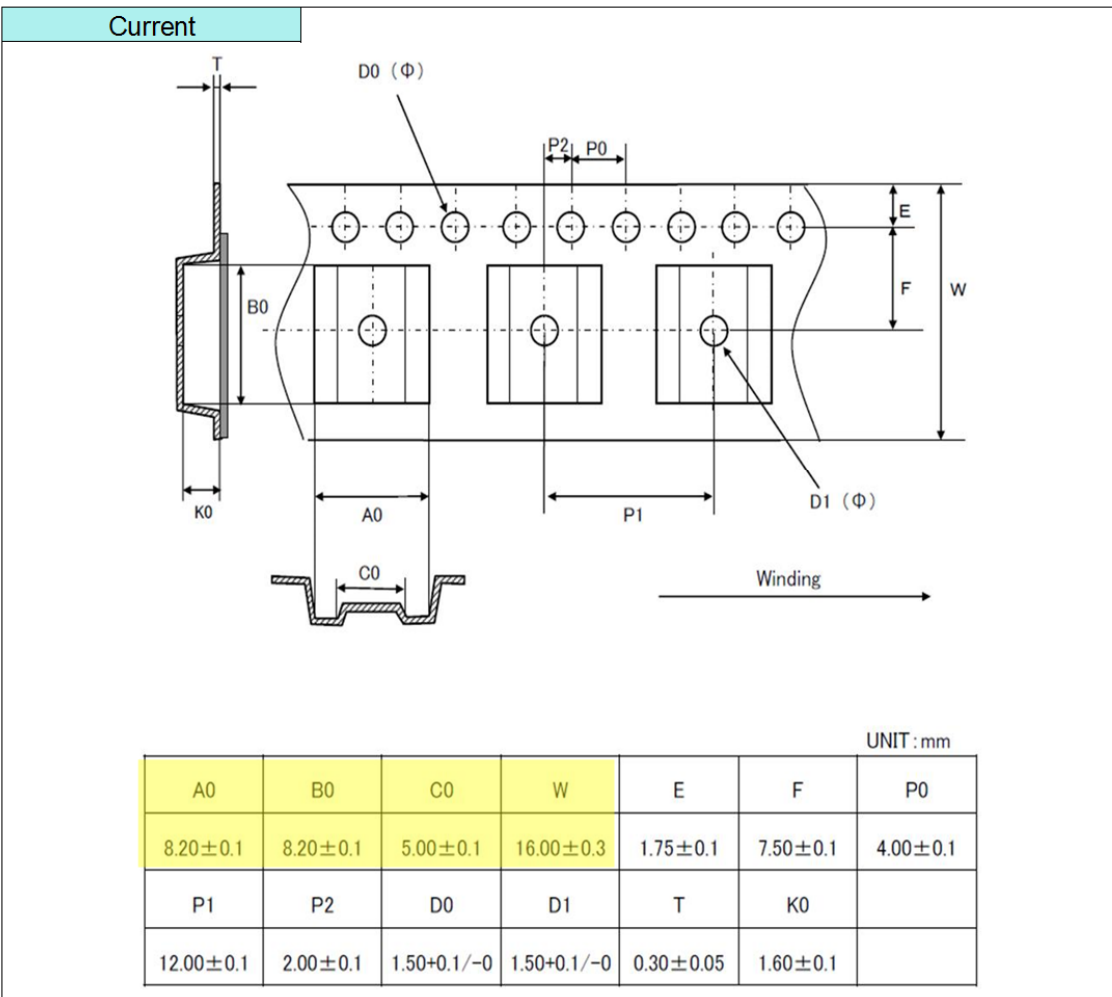
2 Process Flow

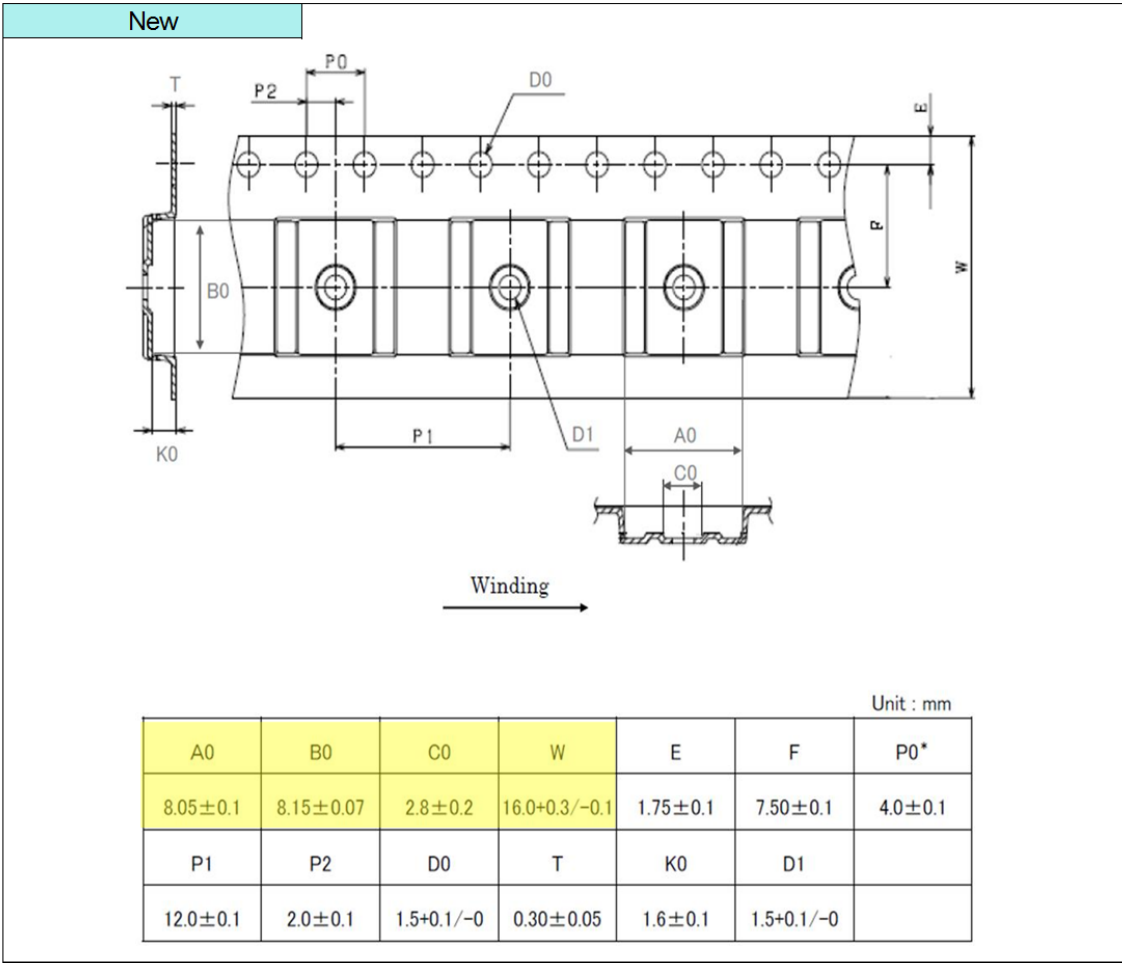
Process flow	Current	New
Wafer fabrication	AKM FAB2 (No change)	
Probe test		
Backgrind		
Dicing	KATOH Electric. Co.,Ltd. Yamanashi plant	J-DEVICES CORPORATION Fukuoka plant
Die bonding	OKURA MICRO-COATING Co.,LTD.	Mihara denshi Co. Ltd
Wire bonding		
Molding		
Plating		
Marking		
Trim & Form	AKM FAB2 (No change)	
Final test		
Tape & Reel		
Packing / Shipping		

3 Specifications

Item	Current	New
Package type	VSOP	no change
Pin count	24	no change
Die information	Thickness : 280um	Thickness : no change
Lead frame	Material : Cu	Material : no change
	Base material : C194	Base material : no change
	Die pad : 3.75 x 5.2 mm	Die pad : no change
Dia attach material	Type : Ag paste	Type : no change
	Supplier : Hitachi Chemical Co., Ltd.	Supplier : Sumitomo Bakelite Co., Ltd.
Wire	Type : 4N	Type : no change
	Diameter : φ23um	Diameter : φ25um
Mold compound	Type : Epoxy resin	Type : no change
	Supplier : Hitachi Chemical Co., Ltd.	Supplier : Sumitomo Bakelite Co., Ltd.
	Halogen free : No	Halogen free : Yes
Plating	Composition : Sn-2Bi	Composition : Sn-3.5Ag
	Thickness : 5-15um	Thickness : no change
Packing	Type : Tape & Reel	Type : no change
	Reel : RRM16Cc	Reel : no change
	Cover : CSL-Z7302 13.5×500	Cover : no change
	Emboss : VSOP-24P-12100SPS	Emboss : VSOP24P-9600NPS
	Q'ty/reel : 1,000pcs/reel	Q'ty/reel : no change
	pin1 direction : E2	pin1 direction : no change

Emboss Tape

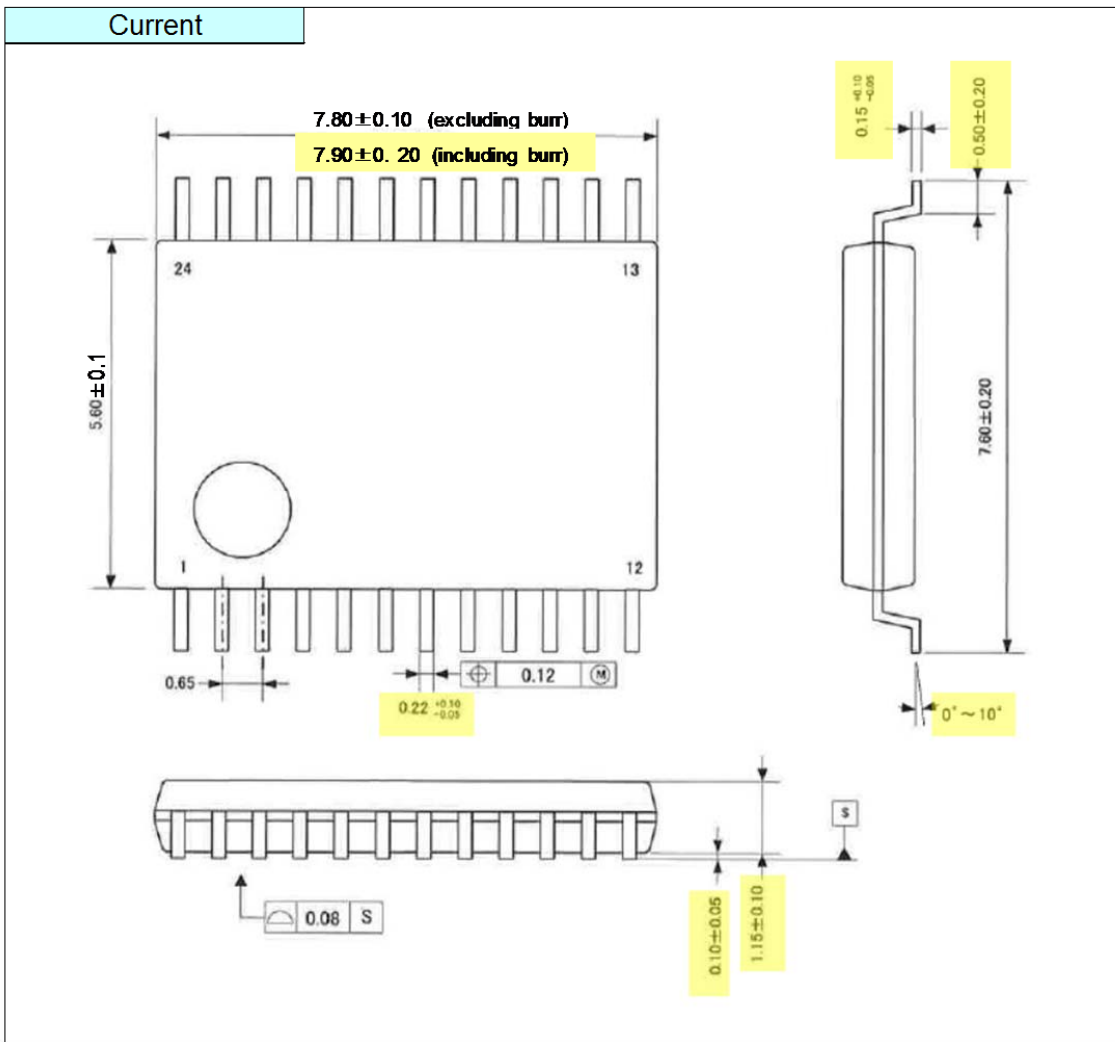




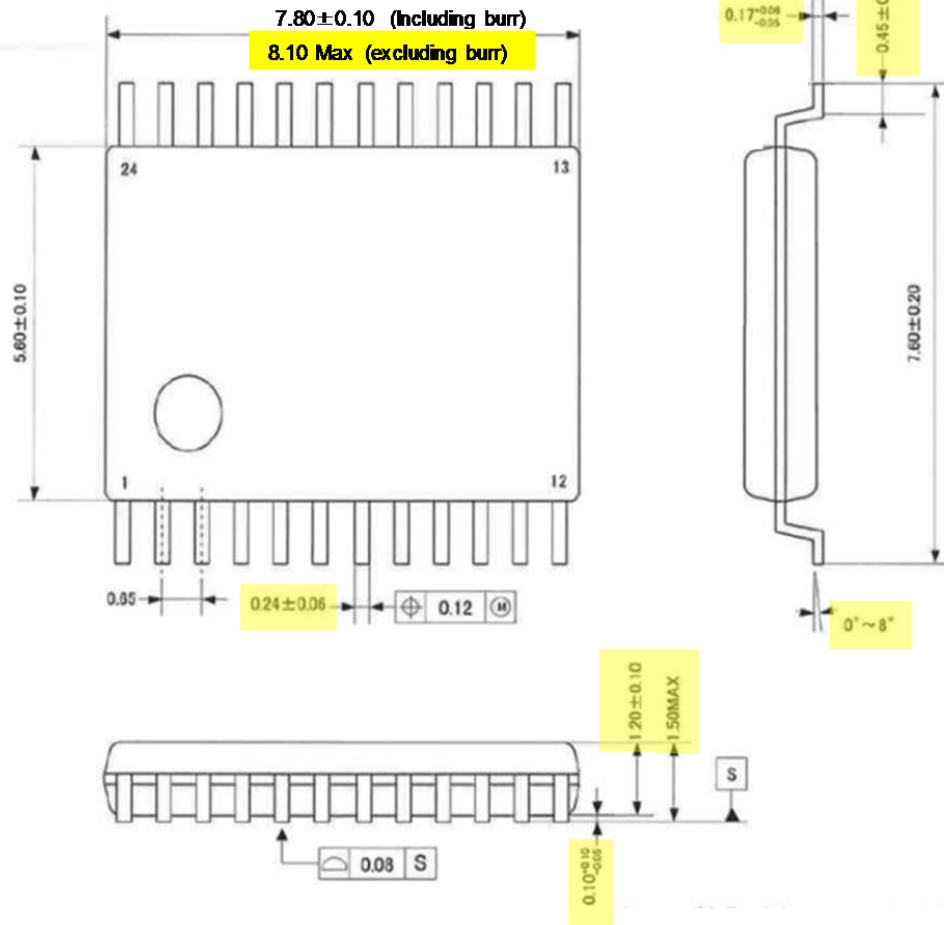
4 Laser Marking

Item	Current	New
Marking type	Type : Laser	Type : no change
Marking specification	Line 1 : Logo	Line 1 : no change
	Line 2 : Device name	Line 2 : no change
	Line 3 : Datecode	Line 3 : no change
	Digits of datecode : 6 digits	Digits of datecode : 7 digits
Index marking	Pin#1	←
Marking layout *Example of AK4103AVF		

5 Package Dimensions

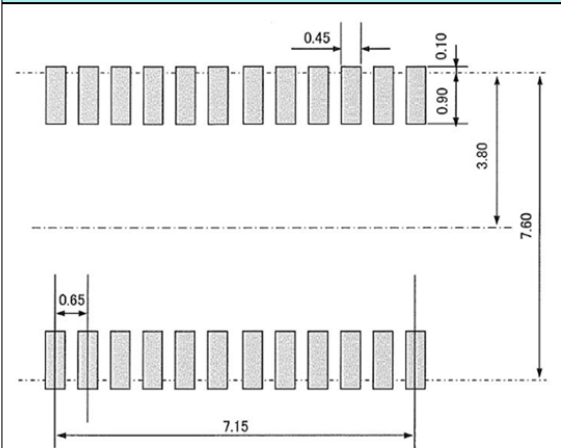


New



Item		Current	New
PKG width(X) with burr	mm	7.80 ± 0.10	no change
PKG width(X) without burr	mm	7.90 ± 0.20	8.10 Max
PKG width(Y)	mm	5.60 ± 0.1	no change
PKG thickness	mm	1.15 ± 0.10	1.20 ± 0.10
PKG height	mm	1.40 Max	1.50 Max
Tip to Tip of lead	mm	7.60 ± 0.20	no change
Lead width	mm	$0.22 + 0.10 / - 0.05$	0.24 ± 0.06
Lead thickness	mm	$0.15 + 0.10 / - 0.05$	$0.17 + 0.08 / - 0.05$
Tolerance of lead position	mm	$\phi 0.12$	no change
Lead pitch	mm	0.65	no change
Tip angle of lead	°	0-10°	0-8°
Tip length of lead	mm	0.50 ± 0.20	0.45 ± 0.20
Standoff	mm	0.10 ± 0.05	$0.10 + 0.10 / - 0.05$
Coplanarity	mm	MAX0.08	no change

6 Recommended Solder Pad Dimensions

Current	New
 <p>※AKM's reference Land-pattern is described above, however, please note that the most suitable dimension for mounting-pad will vary according to following conditions; Materials of PCB, Kind of soldering paste, Soldering method, Accuracy of soldering machine, so on. So, for your actual design for Land-pattern, we recommended you should optimize it to your actual condition.</p>	<p>no change</p>

7 Assembly Site Address

Current	6392, Kamiyoshida, Fujiyoshida-City, Yamanashi
New	476-1, Kamiokuma, Miyawaka-City, Fukuoka