

Design Change Notification

February 24th, 2022

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR _____

Model: San Ace 40 (9P) 40mm sq. x 10mm thick
(Please refer Attached Sheet for a complete part number list.)SANYO DENKI CO., LTD.
Design Dept, Cooling Systems Div.

Approved	Checked	Designed
		

SANYO DENKI America, Inc.
Cooling Systems Division

No.	Contents	Before Change	After Change	Description
1	Motor drive IC, electronic parts, Motor Windings and PWB	Use motor drive IC manufactured by ON-Semiconductor.	Use motor drive IC manufactured by Rohm.	Change to the motor drive IC due to discontinuation of production by the semiconductor manufacturer. Also change to some electric parts except IC, Motor windings and PWB due to the change of the motor drive IC.
2	Specifications	See the Attached Sheet.	See the Attached Sheet.	
3	Implementation Date			Implementation Date: From February, 2023 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

No. A0052811 - Attached Sheet 1 - 1/2

[MODEL LIST]

San Ace 40 (9P) – 40mm x 10mm thick

MODEL	Change contents	MODEL	Change contents
109P0405H901	Attached Sheet 2	109P0405M9D01	Attached Sheet 5
109P0405H902		109P0405M9D03	
109P0405H906		109P0405M9D04	
109P0405H913		109P0405M9D06	
109P0405H916		109P0405M9D07	
109P0405H917		109P0405M9D08	
109P0405H918		109P0405M9D10	
109P0405H919		109P0412H901	Attached Sheet 6
109P0405H920		109P0412H902	
109P0405H921		109P0412H912	
109P0405H922		109P0412H919	
109P0405H923		109P0412H923	
109P0405H924		109P0412H926	
109P0405H926		109P0412H927	
109P0405H927		109P0412H928	
109P0405H928		109P0412H929	
109P0405H9D01	109P0412H934		
109P0405H9D03	109P0412H937		
109P0405H9D08	109P0412H939		
109P0405H9D10	109P0412H942		
109P0405H9D11	109P0412H945		
109P0405H9D12	109P0412H946		
109P0405H9D13	109P0412H947		
109P0405H9D14	109P0412H948		
109P0405M901	Attached Sheet 4	109P0412H951	
109P0405M902		109P0412H952	
109P0405M906		109P0412H954	
109P0405M907		109P0412H955	
109P0405M908		109P0412H956	
109P0405M909		109P0412H957	
109P0405M911		109P0412H958	
109P0405M912		109P0412H901-A03	
109P0405M913		109P0412H901-A07	
109P0405M915		109P0412H902-A01	
109P0405M916		1022-106342	

No. A0052811 - Attached Sheet 1 - 2/2

[MODEL LIST]

San Ace 40 (9P) – 40mm x 10mm thick

MODEL	Change contents
109P0412H9D01 109P0412H9D03 109P0412H9D10 109P0412H9D11 109P0412H9D12 109P0412H9D15 109P0412H9D16	Attached Sheet 7
109P0412M901 109P0412M902 109P0412M912 109P0412M917 109P0412M918 109P0412M922 109P0412M925 109P0412M927 109P0412M928 109P0412M929 109P0412M930 109P0412M932 109P0412M934 109P0412M936 109P0412M937 109P0412M938 109P0412M940	Attached Sheet 8
109P0412M9D01 109P0412M9D06 109P0412M9D08 109P0412M9D09 109P0412M9D10 109P0412M9D11 109P0412M9D01-A02	Attached Sheet 9

No. A0052811 - Attached Sheet 2

[MODEL]

109P0405H901, 109P0405H902, 109P0405H906, 109P0405H913, 109P0405H916, 109P0405H917,
 109P0405H918, 109P0405H919, 109P0405H920, 109P0405H921, 109P0405H922, 109P0405H923,
 109P0405H924, 109P0405H926, 109P0405H927, 109P0405H928

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1962MC	BD6962
	Manufacture	On-semiconductor	Rohm
Operating voltage		No change	
Electrical current		No change	
Starting current		0.25 [A] nominal 0.28 [A] maximum	0.3 [A] nominal 0.33 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Vce: +30 [V DC] max.	Vce: +15 [V DC] max.
		Ic: 10 [mA] max.	Ic: 10 [mA] max.
		Vce(sat): 0.4 [V DC] max.	Vce(sat): 0.4 [V DC] max.

No. A0052811 - Attached Sheet 3

[MODEL]

109P0405H9D01, 109P0405H9D03, 109P0405H9D08, 109P0405H9D10, 109P0405H9D11, 109P0405H9D12
 109P0405H9D13, 109P0405H9D14

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1862MC	BD6964
	Manufacture	On-semiconductor	Rohm
Operating voltage		No change	
Electrical current		No change	
Starting current		0.25 [A] nominal 0.28 [A] maximum	0.3 [A] nominal 0.33 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		No change	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		No change	
Sensor spec.		No change	

No. A0052811 - Attached Sheet 4

[MODEL]

109P0405M901, 109P0405M902, 109P0405M906, 109P0405M907, 109P0405M908, 109P0405M909,
 109P0405M911, 109P0405M912, 109P0405M913, 109P0405M915, 109P0405M916

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1962MC	BD6962
	Manufacture	On-semiconductor	Rohm
Operating voltage		No change	
Electrical current		No change	
Starting current		0.16 [A] nominal 0.18 [A] maximum	0.22 [A] nominal 0.24 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Vce: +30 [V DC] max.	Vce: +15 [V DC] max.
		Ic: 10 [mA] max.	Ic: 10 [mA] max.
		Vce(sat): 0.4 [V DC] max.	Vce(sat): 0.4 [V DC] max.

No. A0052811 - Attached Sheet 5

[MODEL]

109P0405M9D01, 109P0405M9D03, 109P0405M9D04, 109P0405M9D06, 109P0405M9D07, 109P0405M9D08
109P0405M9D10

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1862MC	BD6964
	Manufacture	On-semiconductor	Rohm
Operating voltage		No change	
Electrical current		No change	
Starting current		0.16 [A] nominal 0.18 [A] maximum	0.22 [A] nominal 0.24 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		No change	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		No change	
Sensor spec.		No change	

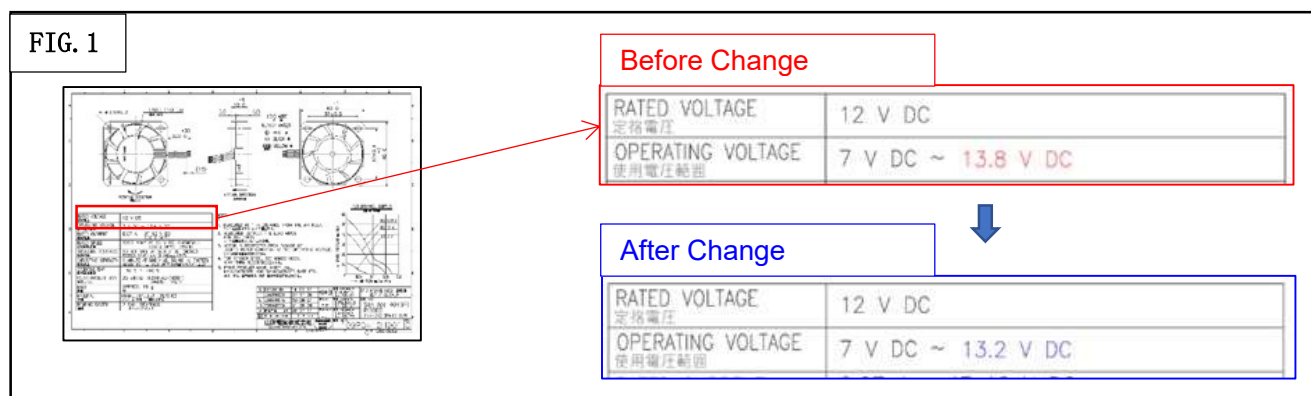
No. A0052811 - Attached Sheet 6

[MODEL]

109P0412H901, 109P0412H902, 109P0412H912, 109P0412H919, 109P0412H923, 109P0412H926,
 109P0412H927, 109P0412H928, 109P0412H929, 109P0412H934, 109P0412H937, 109P0412H939,
 109P0412H942, 109P0412H945, 109P0412H946, 109P0412H947, 109P0412H948, 109P0412H951,
 109P0412H952, 109P0412H954, 109P0412H955, 109P0412H956, 109P0412H957, 109P0412H958,
 109P0412H901-A03, 109P0412H901-A07, 109P0412H902-A01, 1022-106342

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1962MC	BD6962
	Manufacture	On-semiconductor	Rohm
Operating voltage		7 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.2 VDC Refer to FIG.1
Electrical current		No change	
Starting current		0.1 [A] nominal 0.12 [A] maximum	0.12 [A] nominal 0.14 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Vce: +30 [V DC] max.	Vce: +15 [V DC] max.
		Ic: 10 [mA] max.	Ic: 10 [mA] max.
		Vce(sat): 0.4 [V DC] max.	Vce(sat): 0.4 [V DC] max.



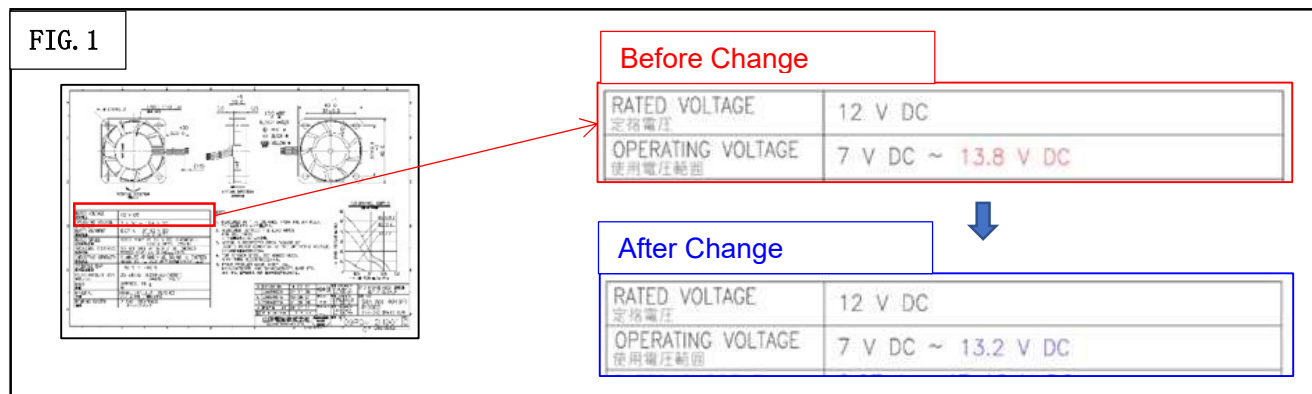
No. A0052811 - Attached Sheet 7

[MODEL]

109P0412H9D01, 109P0412H9D03, 109P0412H9D10, 109P0412H9D11, 109P0412H9D12, 109P0412H9D15
109P0412H9D16

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1862MC	BD6964
	Manufacture	On-semiconductor	Rohm
Operating voltage		7 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.2 VDC Refer to FIG.1
Electrical current		No change	
Starting current		0.1 [A] nominal 0.12 [A] maximum	0.12 [A] nominal 0.14 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		No change	



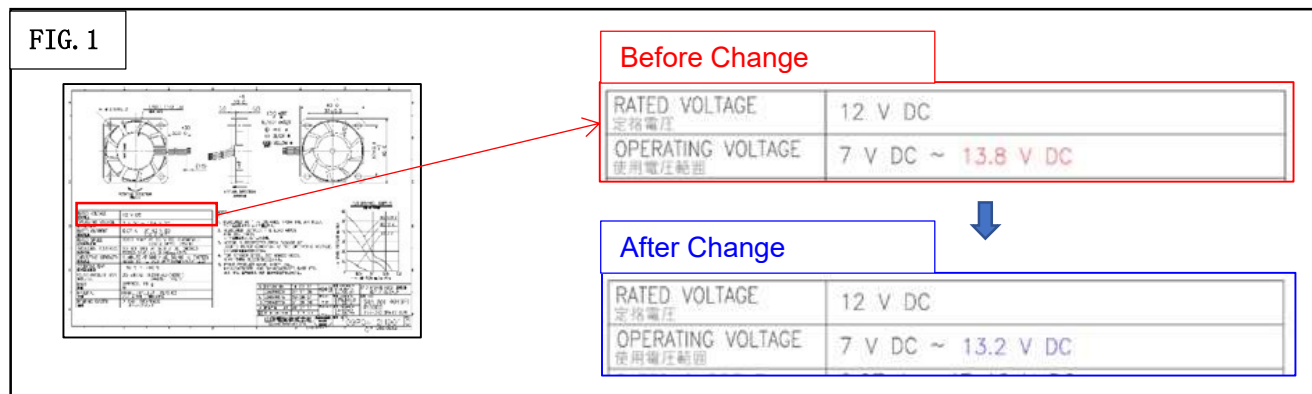
No. A0052811 - Attached Sheet 8

[MODEL]

109P0412M901, 109P0412M902, 109P0412M912, 109P0412M917, 109P0412M918, 109P0412M922,
 109P0412M925, 109P0412M927, 109P0412M928, 109P0412M929, 109P0412M930, 109P0412M932,
 109P0412M934, 109P0412M936, 109P0412M937, 109P0412M938, 109P0412M940

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1962MC	BD6962
	Manufacture	On-semiconductor	Rohm
Operating voltage		7 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.2 VDC Refer to FIG.1
Electrical current		No change	
Starting current		0.08 [A] nominal 0.09 [A] maximum	0.09 [A] nominal 0.1 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Vce: +30 [V DC] max.	Vce: +15 [V DC] max.
		Ic: 10 [mA] max.	Ic: 10 [mA] max.
		Vce(sat): 0.4 [V DC] max.	Vce(sat): 0.4 [V DC] max.



No. A0052811 - Attached Sheet 9

[MODEL]

109P0412M9D01, 109P0412M9D06, 109P0412M9D08, 109P0412M9D09, 109P0412M9D10, 109P0412M9D11,
109P0412M9D01-A02

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB1862MC	BD6964
	Manufacture	On-semiconductor	Rohm
Operating voltage		7 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.2 VDC Refer to FIG.1
Electrical current		No change	
Starting current		0.08 [A] nominal 0.09 [A] maximum	0.09 [A] nominal 0.1 [A] maximum
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		No change	

