

Design Change Notification

December 29th, 2021

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR

Model: San Ace 60(9GA) 60mm sq. x 20mm 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 Toshiba or New-Japan-Radio.	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 October, 2022 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

No. A0052567- Attached Sheet 1 – 1/2

[MODEL LIST]

San Ace 60(9GA) – 60mm x 20mm thick

MODEL	Change contents
9GA0612G6001	Attached Sheet 2
9GA0612G6002	
9GA0612G6003	
9GA0612S6001	
9GA0612S6002	
9GA0612S60021	
9GA0612S6003	
9GA0612S6004	
9GA0612S6005	
9GA0612H6001	
9GA0612H6002	
9GA0612H6003	
9GA0612H6004	
9GA0612H6005	
9GA0612H6006	
9GA0612M6001	
9GA0612M6002	
9GA0612P6G001	
9GA0612P6G002	
9GA0612P6G005	
9GA0612P6G006	
9GA0612P6G007	
9GA0612P6G008	
9GA0612P6G009	Attached Sheet 4
9GA0612P6G012	
9GA0612P6S001	
9GA0612P6S003	
9GA0612P6S0031	
9GA0612P6S005	
9GA0612P6S007	

No. A0052567 - Attached Sheet 1 – 2/2

[MODEL LIST]

San Ace 60(9GA) – 60mm x 20mm thick

MODEL	Change contents
9GA0624G6001	Attached Sheet 5
9GA0624G6002	
9GA0624G6004	
9GA0624G6005	
9GA0624G6D001	
9GA0624S6001	
9GA0624S6002	
9GA0624S6003	
9GA0624S6004	
9GA0624H6001	
9GA0624H6001-C	
9GA0624H6002	
9GA0624H6002-C	
9GA0624H6003	
9GA0624H6004	
9GA0624H6D001	
9GA0624M6001	
9GA0624M6002	
9GA0624M6002-C	
9GA0624M6D001	
9GA0624P6G001	Attached Sheet 6
9GA0624P6G003	
9GA0624P6G004	
9GA0624P6GD001	
9GA0624P6S001	
9GA0624P6S003	
9GA0624P6S004	
9GA0624P6S005	
9GA0624P6S006	
9GA0624P6S007	
9GA0624P6G001-A01	

No. A0052567- Attached Sheet 2

[MODEL]

9GA0612G6001, 9GA0612G6002, 9GA0612G6003,
 9GA0612S6001, 9GA0612S6002, 9GA0612S60021, 9GA0612S6003, 9GA0612S6004, 9GA0612S6005,
 9GA0612H6001, 9GA0612H6002, 9GA0612H6003, 9GA0612H6004, 9GA0612H6005, 9GA0612H6006,
 9GA0612M6001, 9GA0612M6002

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By Toshiba
Operating voltage	No change	
Electrical current	No change	
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	

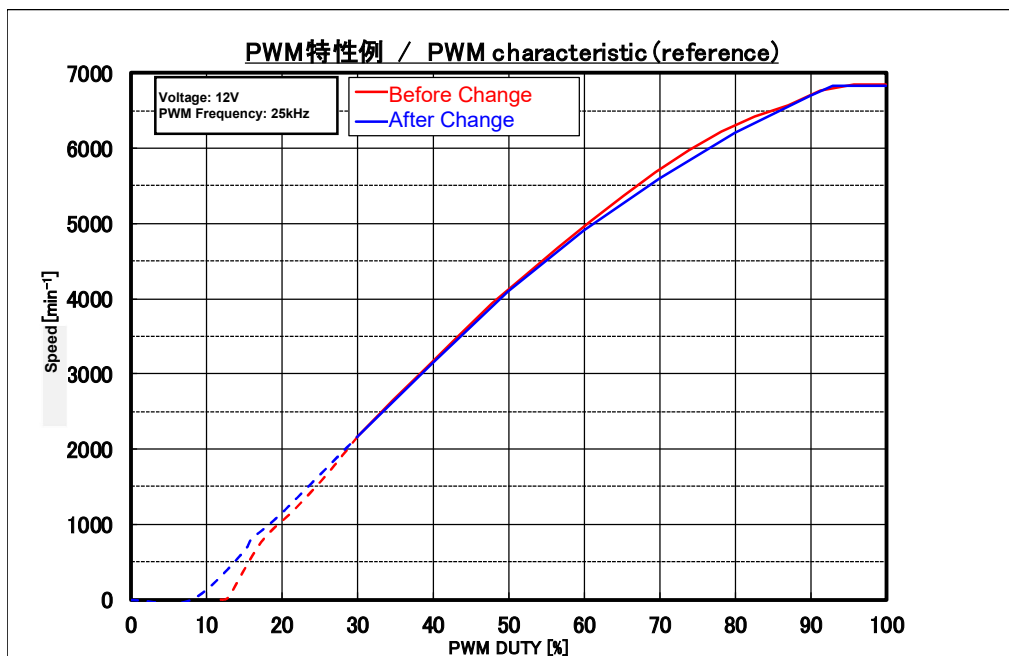
No. A0052567 - Attached Sheet 3

[MODEL]

9GA0612P6G001, 9GA0612P6G002, 9GA0612P6G005, 9GA0612P6G006, 9GA0612P6G007,
9GA0612P6G008, 9GA0612P6G009, 9GA0612P6G012

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By Toshiba
Operating voltage	No change	
Electrical current	No change	
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	Refer to below for characteristic	Refer to below for characteristic
Sensor spec.	No change	



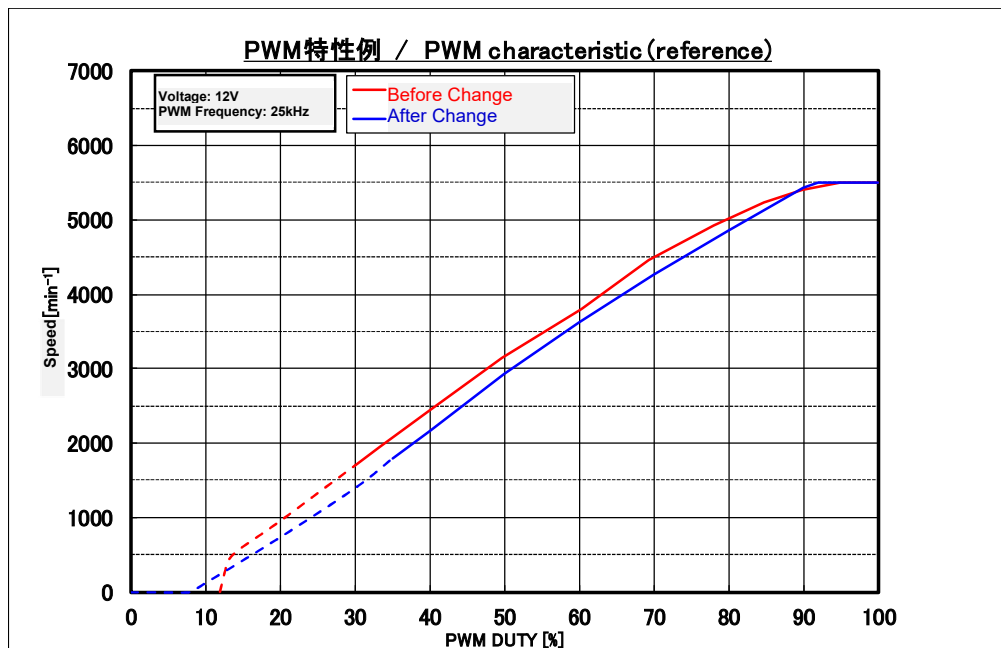
No. A0052567 - Attached Sheet 4

[MODEL]

9GA0612P6S001, 9GA0612P6S003, 9GA0612P6S0031, 9GA0612P6S005, 9GA0612P6S007

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By Toshiba
Operating voltage	No change	
Electrical current	No change	
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	Refer to below for characteristic	Refer to below for characteristic
Sensor spec.	No change	



No. A0052567 - Attached Sheet 5

[MODEL]

9GA0624G6001, 9GA0624G6002, 9GA0624G6004, 9GA0624G6005, 9GA0624G6D001,
 9GA0624S6001, 9GA0624S6002, 9GA0624S6003, 9GA0624S6004,
 9GA0624H6001, 9GA0624H6001-C, 9GA0624H6002, 9GA0624H6002-C, 9GA0624H6003, 9GA0624H6004,
 9GA0624H6D001,
 9GA0624M6001, 9GA0624M6002, 9GA0624M6002-C, 9GA0624M6D001

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	NJW4320 By New-Japan-Radio
Operating voltage	No change	
Electrical current	No change	
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. A0052567 - Attached Sheet 6

[MODEL]

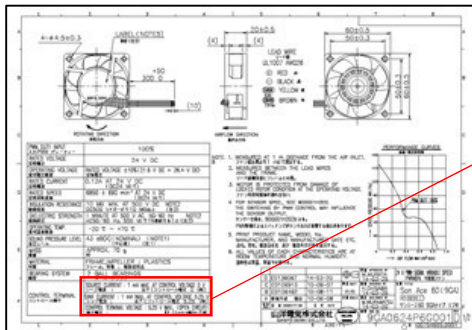
9GA0624P6G001, 9GA0624P6G003, 9GA0624P6G004, 9GA0624P6GD001,

9GA0624P6S001, 9GA0624P6S003, 9GA0624P6S004, 9GA0624P6S005, 9GA0624P6S006, 9GA0624P6S007,

9GA0624P6G001-A01

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By Toshiba
Operating voltage	No change	
Electrical current	No change	
Speed	No change	
Operating temp.	No change	
Sound pressure level	No change	
Control terminal	Source current: 1 mA MAX. Refer to below drawing	Source current: 2 mA MAX. Refer to below drawing
Air flow – static pressure character	No change	
PWM duty cycle - Speed characteristic	No change	
Sensor spec.	No change	



Before Change

SOURCE CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 0 V ソース電流 : 以下 (コントロール電圧 0 V時)
SINK CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 5.25 V シンク電流 : 以下 (コントロール電圧 5.25 V時)
CONTROL TERMINAL VOLTAGE : 5.25 V MAX. (OPEN CIRCUIT) 端子電圧 : 以下 (コントロール端子オープン時)

After Change

SOURCE CURRENT : 2 mA MAX. AT CONTROL VOLTAGE 0 V ソース電流 : 以下 (コントロール電圧 0 V時)
SINK CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 5.25 V シンク電流 : 以下 (コントロール電圧 5.25 V時)
CONTROL TERMINAL VOLTAGE : 5.25 V MAX. (OPEN CIRCUIT) 端子電圧 : 以下 (コントロール端子オープン時)