



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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52mm sq.

San Ace 52

15mm thick
External thermistor model /
Built-in thermistor model



Note: Optional external thermistors are sold separately.

General Specifications

- Material Frame: Plastics (Flammability: UL94V-0),
Impeller: Plastics (Flammability: UL94V-1)
- Life Expectancy Varies for each model (L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Lead Wire ⊕red ⊖black (Control) brown (Only for external thermistor type)
- Fail-safe The motor becomes high speed when the thermistor is unable to detect the temperature in case of open or short circuit etc. (Models equipped with a pulse sensor are excluded.)
- Storage Temperature... -30°C to +70°C (Non-condensing)

52×52×15mm (Mass : 55g)

Specifications External thermistor model

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Air Flow [m ³ /min] [CFM]	Static Pressure [Pa] [inchH ₂ O]	SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
109P0512T7H12	12	10.2 to 13.8	0.13	1.56	4,600	0.255 9.0	31.9 0.128	27	-10 to +70	60,000
			0.09	1.08	2,300	0.13 4.6	8.8 0.035	17		

Note: The top row gives characteristics shown when the thermistor temperature is 35°C, while the bottom row gives characteristics shown when the thermistor temperature is 28°C (Thermistor: 169-002).

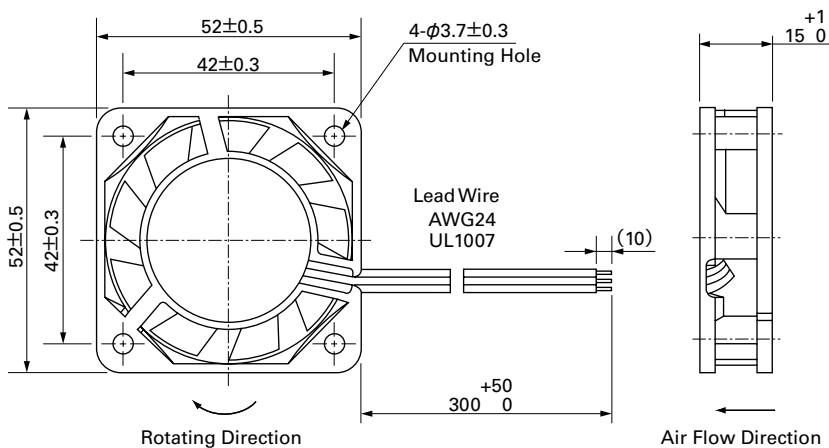
Built-in thermistor model

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Air Flow [m ³ /min] [CFM]	Static Pressure [Pa] [inchH ₂ O]	SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
109P0512T7H122	12	10.2 to 13.8	0.13	1.56	4,900	0.27 9.5	36.2 0.145	28	-10 to +70	60,000
			0.09	1.08	2,400	0.14 4.9	9.6 0.039	17		

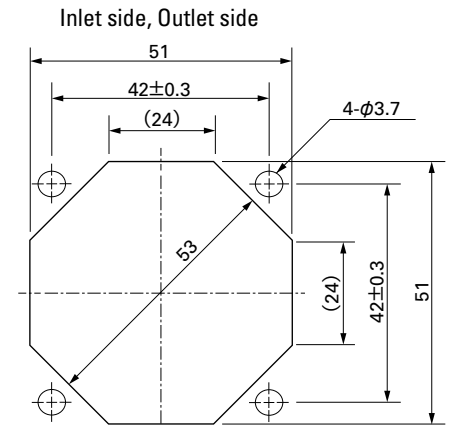
Note: The top row gives characteristics shown when the temperature is 40°C, while the bottom row gives characteristics shown when the temperature is 30°C.

Dimensions (Unit : mm)

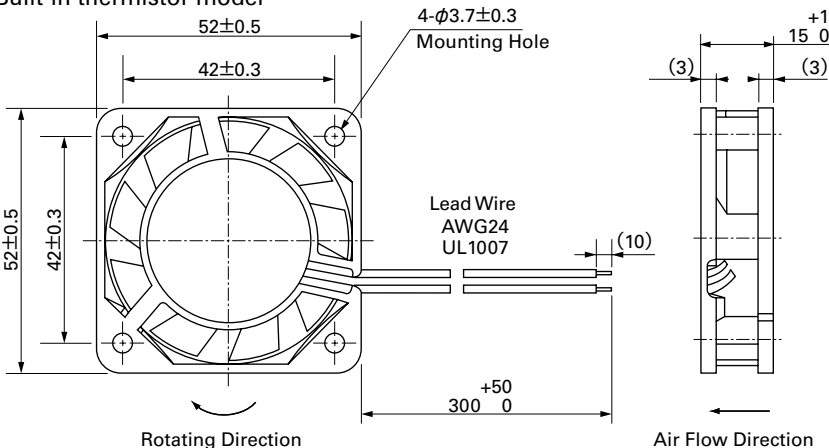
External thermistor model



Reference dimensions of mounting holes and vent opening (Unit : mm)



Built-in thermistor model

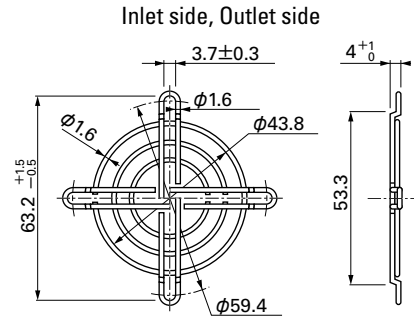
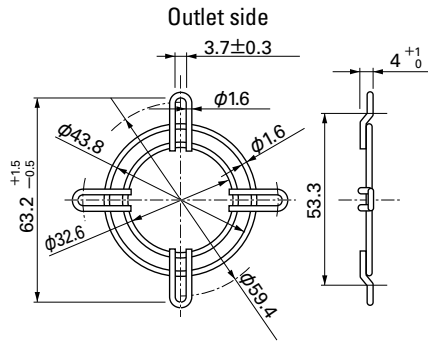


Options (Unit : mm)

Finger guards

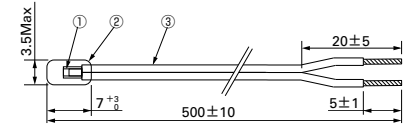
Model : 109-149 Surface treatment : Nickel-chrome plating Color (silver)

Model : 109-149E Surface treatment : Nickel-chrome plating Color (silver)



Thermistor

Model : 169-002

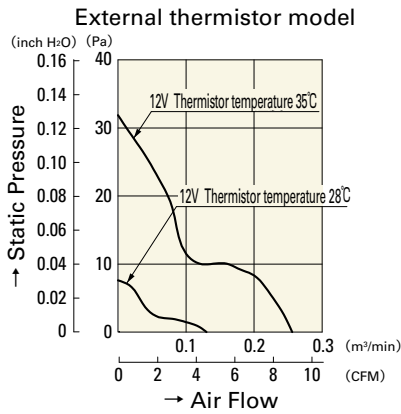


Number	Name	Standards, materials, etc.
①	Thermistor	Chip
②	Insulated cord	Epoxy resin
③	Lead	UL2555 CSA TR-64 AWG#28 (blue)

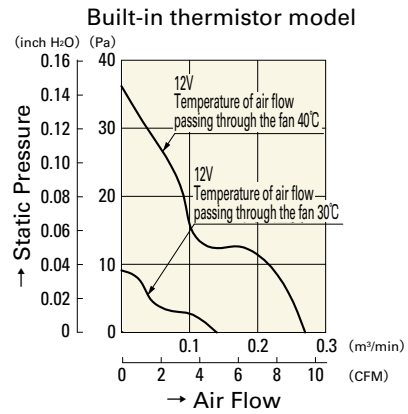
Item	Spec
2-1	Resistance R25 6.8KΩ ±3%
2-2	B constant B25/50 3950K ±2%
2-3	Maximum rated power 188mW (25°C under still air)
2-4	Insulation resistance 100MΩ or more (DC500V megger)
2-5	Dielectric strength No problem (AC1500V 1 minute)
2-6	Operating temperature range -30°C to +80°C
2-7	Storage temperature range -40°C to +100°C

Manufactured by OHIZUMI MFG CO.,LTD.
Mfr. Part No. 159-682-86 □□□

Air Flow and Static Pressure Characteristics



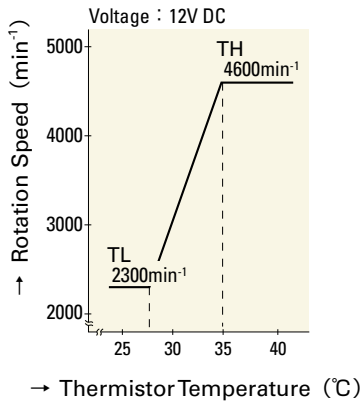
109P0512T7H12



109P0512T7H122

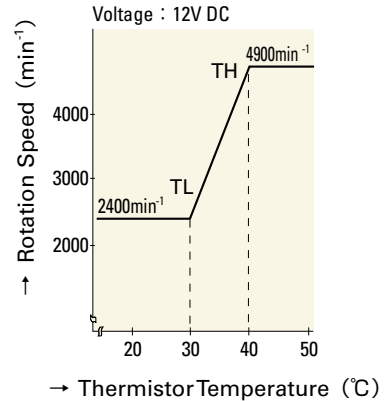
Temperature-Rotation Speed Characteristics

External thermistor model
■ Characteristics of Thermistor-detected Temperature vs Speed



109P0512T7H12

Built-in thermistor model
■ Typical characteristics of temperature of air flowing through the fan versus rotation speed



109P0512T7H122