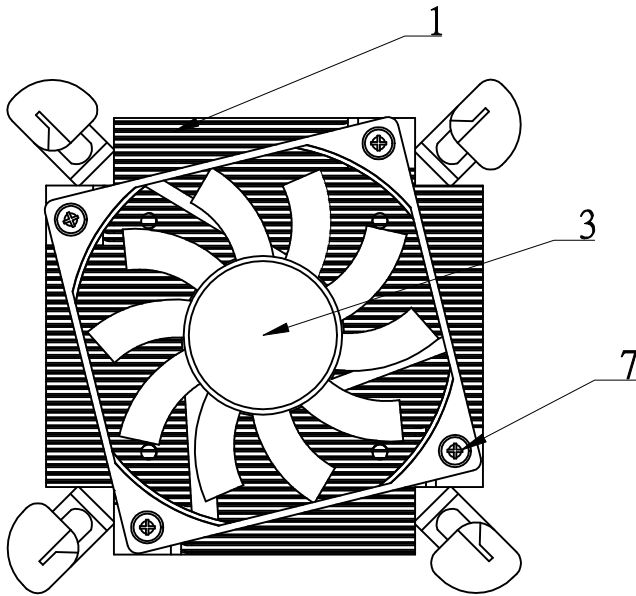
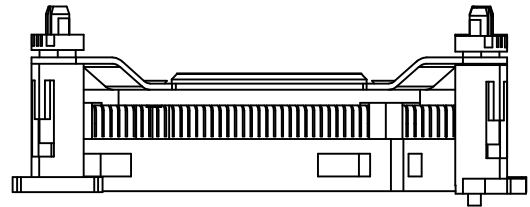
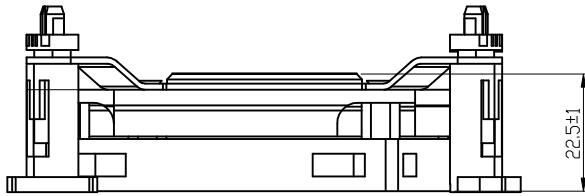
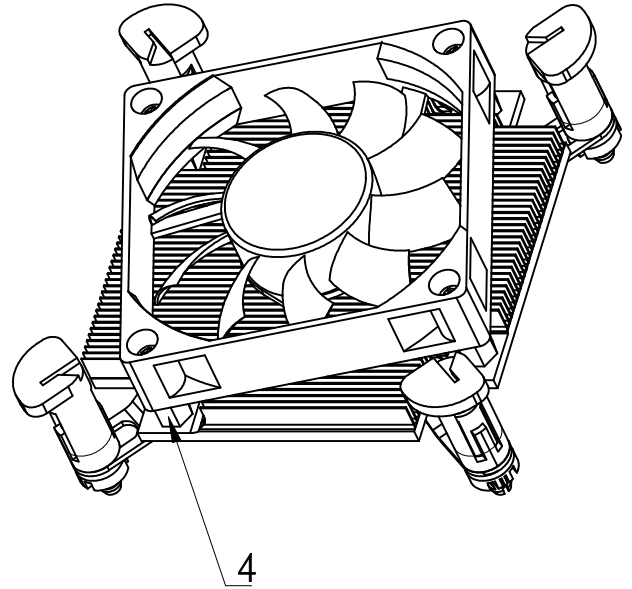
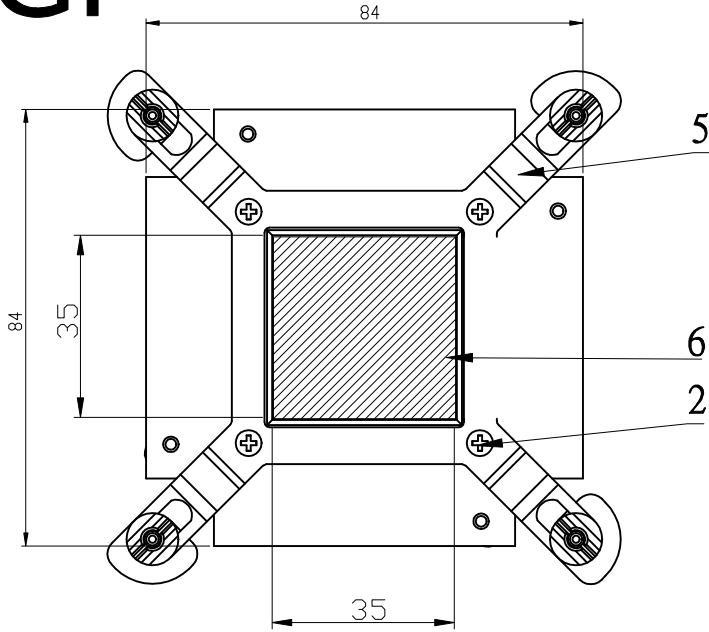


GP



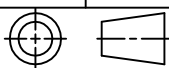
Note:1. The Fin Pitch is 1.5mm ◦
2. The Fin Thickness is 0.3mm ◦

TOLERANCE TABLE (UNLESS OTHERWISE SPECIFIED)	
RANGE	TOL ±
UNDER 6	0.18
6~10	0.22
10~18	0.27
18~30	0.33
30~50	0.39
50~80	0.46
80~120	0.54
120~250	0.63
250 OVER	0.8
ANG TOL ±	1°

REV	DESCRIPTION	DATE
REVISION HISTORY		

P/N	DESCRIPTION	QTY
7.JAS095C	FAN SCREW	4
6.--	7783D_35*35mm	1
5.JAT319	BACKPLATE	4
4.JAU071	CU PART	4
3.JAF 707010H5	PWM Fan	1
2.JAS170C	M3*3mm SCREW	4
1.JAHL24C	HEAT SINK	1

DRN	Tony	12/17 2012	P/N:
CHK			TITLE:
APP			COOLER
			SCALE: 1 : 1
			UNIT: M/M



DOCUMENT NUMBER: 081156

**SPECIFICATION
OF
DC FAN**

CUSTOMER	尙太-佳承
MODEL	R127010BU(AF2P9bR)
DATE	2008.11.26
COMPLIANCE WITH ROHS STANDARD	

REV. NO	MODIFY CONTENT
A	

APPROVAL SIGNATURE	

**EVERFLOW CHINA
FACTORY**
TEL : 86-769-83727162
86-769-83796589
FAX :86-769-83727163

SPECIFICATIONS

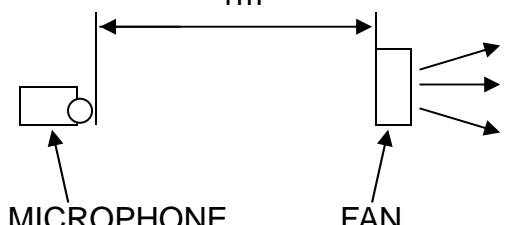
TYPE DC BRUSHLESS FAN	MODEL NO. R127010BU AF	PAGE: 1 OF 5
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THESE SPECIFICATIONS DEFINE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS FAN.

1. MECHANICAL SPECIFICATIONS

- | | |
|-------------------------|---|
| 1-1 EXTERNAL DIMENSIONS | : REFER TO DWG. NO. HT-001 |
| 1-2 FRAME MATERIAL | : LEAD-FREE PBT(BLACK) PLASTIC {UL 94V-0} |
| IMPELLER MATERIAL | : LEAD-FREE PBT(BLACK) PLASTIC {UL 94V-0} |
| 1-3 BEARING | : TWO BALL BEARING |
| 1-4 NET WEIGHT | : 33g |

2. ELECTRICAL SPECIFICATIONS

NO	ITEMS	STANDARD	REMARKS
2-1	RATED VOLTAGE	12 V DC	
2-2	OPERATING RANGE	11.4 V~12.6 V DC	
2-3	CONSUMING CURRENT	DUTY CYCLE =100% 0.45 Amp (MAX. 0.45 Amp) DUTY CYCLE = 0%~30% (MAX. 0.10 Amp)	1.IN FREE AIR AT RATED VOLTAGE 2.AT25°C
2-4	CONSUMING POWER	DUTY CYCLE =100% 5.40 W (MAX.5.40W) DUTY CYCLE = 0%~30% (MAX. 1.20 W)	IN FREE AIR AT RATED VOLTAGE
2-5	RATED SPEED	DUTY CYCLE =100% 5500rpm±10% DUTY CYCLE= 0%~30% 1200rpm±300rpm	1.IN FREE AIR AT RATED VOLTAGE 2. TESTING SPEED AFTER CONTINUOUS 3 MINUTE OPERATION AT AMBIENT TEMPERATURE OF25°C
2-6	AIRFLOW	DUTY CYCLE =100% 32.93CFM 0.93 m ³ /min DUTY CYCLE =0%~30% 6.96CFM 0.20m ³ /min	AT RATED VOLTAGE AT ZERO STATIC PRESSURE
2-7	STATIC PRESSURE	DUTY CYCLE =100% 4.50mmH ₂ O DUTY CYCLE =0%~30% 0.20mmH ₂ O	AT RATED VOLTAGE AT ZERO AIRFLOW
2-8	SOUND LEVEL	DUTY CYCLE =100% 45dB(A) (MAX. 49dB(A)) DUTY CYCLE = 0%~30% 19 dB (A) (MAX. 21 dB(A))	IN FREE AIR AT RATED VOLTAGE 1m  MICROPHONE FAN

EVERFLOW PRECISION ELECTRON CO., LTD	APPROVAL	CHECKED	DRAWING
	LIU CHUN XIANG 2008/11/26	ZHU QIAO 2008/11/26	LIU PING 2008/11/26

SPECIFICATIONS

TYPE	MODEL NO.	PAGE:	
DC BRUSHLESS FAN	R127010BU AF	2 OF 5	
2-10	OPERATING TEMPERATURE	-10°C~70°C (NORMAL HUMIDITY)	
2-11	STORAGE TEMPERATURE	-20°C~75°C (NORMAL HUMIDITY)	
2-12	DIRECTION OF ROTATION	CLOCKWISE FROM LABEL SIDE	
2-13	DIRECTION OF AIRFLOW	LABEL SIDE DISCHARGE	
2-14	INSULATION STRENGTH	10 MEG OHM MIN.	AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)
2-15	DIELECTRIC STRENGTH	MUST WITHSTAND 500 VAC 1SEC.	MAX 1mA BETWEEN FRAME AND LEADS
2-16	PROTECTION	CURRENT LIMIT	
2-17	DROP TEST	IN MINIMUM PACKAGING CONDITION,FAN WITHSTANDS EACH ONE DROP OF THREE FACES FROM 60cm DISTANCE HEIGHT ON TO 2cm THICKNESS OF SOLEPLATE	
2-18	MECHANICAL SHOCK	TEMPERATURE : +25°c. ORIENTATION : X , Y , Z . POWER : NON-OPERATING. ACCELERATION : 50G MAX. PULSE : 11 MS HALF-SINE WAVE. NUMBER OF SHOCKS : 5 SHOCKS FOR EACH DIRECTION.	
NOTE 1. THE ABOVE STANDARD SHOULD BE THE SPECIFIED VALUE AT NORMAL TEMPERATURE (25°C) AND NORMAL HUMIDITY (60~65%) UNLESS OTHERWISE NOTICED.			
EVERFLOW PRECISION ELECTRON CO., LTD		APPROVAL LIU CHUN XIANG 2008/11/26	CHECKED ZHU QIAO 2008/11/26
		DRAWING LIU PING 2008/11/26	

SPECIFICATIONS

TYPE DC BRUSHLESS FAN	MODEL NO. R127010BU AF	PAGE: 3 OF 5
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3.LIFE EXPECTANCE (L10)

MORE THAN 90% SHALL KEEP RUNNING AFTER CONTINUOUS OPERATION OF 50,000 HOURS AT RATED VOLTAGE IN 40°C AMBIENT TEMPERATURE AND 65% RELATIVE HUMIDITY CONDITION.

FAN LIFE SHOULD BE REDEFINED WHEN ABOVE CONDITIONS ARE CHANGED.

4.LOCKED ROTOR

NO DAMAGE SHALL BE FOUND FOR CONTINUOUS ONE HOUR AT LOCKED ROTOR.

5.SPECIAL ITEMS

5-1 SPECIFICATION CHANGE

ANY CHANGES TO THE PARAMETERS SPECIFIED IN THIS DOCUMENT WILL BE DETERMINED BY MUTUAL AGREEMENT ON BOTH PARTIES.

5-2 UNCERTAINTY

IN THE EVENT THAT ANY QUESTIONS MAY ARISE ABOUT THIS DOCUMENT OR ANY STATEMENTS NOT SPECIFIED IN THIS DOCUMENT BOTH PARTIES WILL DISCUSS AND DETERMINE A SOLUTION FAITHFULLY.

5-3 NOTE

1.PLEASE CONSIDER HAVING AN INDEPENDENT PROTECTION SYSTEM IN THE EVENT THAT THE FAN SHOULD STOP OPERATING.

2.PLEASE MAKE REFERENCE TO ATTACHED IMPORTANT NOTES & GENERAL INSTRUCTIONS AND DWG.No.:HT-001 TOGETHER WITH THIS SPECIFICATION.

6. FAN SPEED RESPONSE TO PWM CONTROL INPUT SIGNAL.

IF NO CONTROL SIGNAL IS PRESENT THE FAN SHALL OPERATE AT MAXIMUM RPM.

EVERFLOW PRECISION ELECTRON CO., LTD	APPROVAL	CHECKED	DRAWING
	LIU CHUN XIANG 2008/11/26	ZHU QIAO 2008/11/26	LIU PING 2008/11/26

SPECIFICATIONS

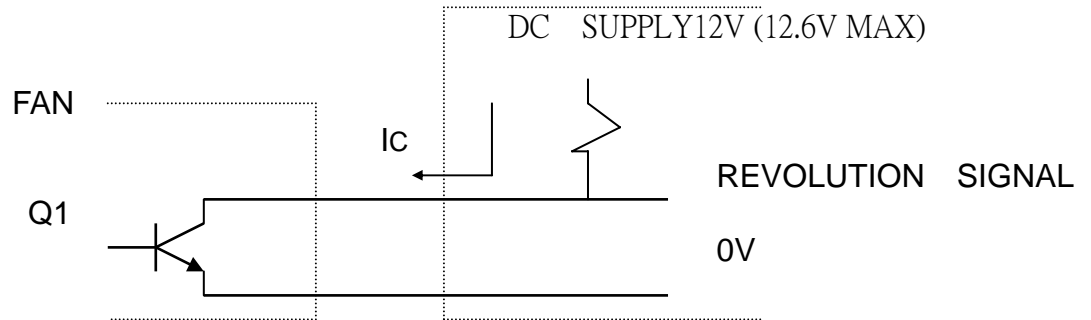
TYPE DC BRUSHLESS FAN	MODEL NO. R127010BU AF	PAGE: 4 OF 5
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7. PROVISION OF REVOLUTION SIGNAL

7-1 OUTPUT OF REVOLUTION SIGNAL

.OUTPUT TYPE
.ELECTRICAL SPECIFICATION

OPEN COLLECTOR TYPE



TRANSISTOR Q1 AT "ON" POSITION
COLLECTOR CURRENT
SATURATION VOLTAGE
BETWEEN COLLECTOR AND EMITTER
AT $I_c = 10\text{mA MAX.}$
TRANSISTOR Q1 AT "OFF" POSITION
RELEASE VOLTAGE

$I_c = 10\text{ mA MAX.}$
 $V_{oL} = 0.5\text{V MAX.}$

$V_{oH} = 12\text{V (12.6V MAX)}$

7-2 OUTPUT WAVEFORM

(ACCORDING TO INPUT VOT.)

(AT REVOLUTION)

(AT LOCKED POSITION)



REMARK: AT LOCKED POSITION, OUTPUT BECOMES V_{oH} OR V_{oL}

$T = T_1 + T_2 + T_3 + T_4 = 60/N$ (SEC) N : FAN SPEED (r.p.m)

$$\text{DUTY} = \frac{T_1}{T_1 + T_2} = 50 \pm 10\%$$

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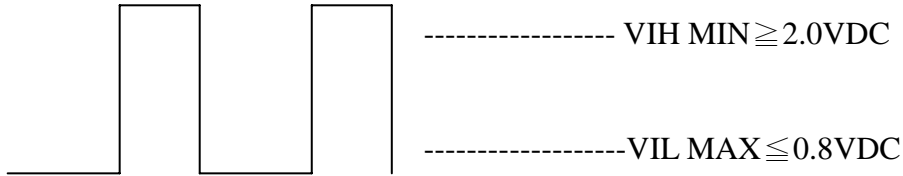
SPECIFICATIONS

TYPE DC BRUSHLESS FAN	MODEL NO. R127010BU AF	PAGE: 5 OF 5
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7-3 PWM CONTROL INPUT SIGNAL:

MAXIMUM VOLTAGE FOR LOGIC LOW:MAX VIL $\leq 0.8\text{VDC}$

MINIMUM VOLTAGE FOR LOGIC HIGH:MIN VIH $\geq 2.0\text{VDC}$



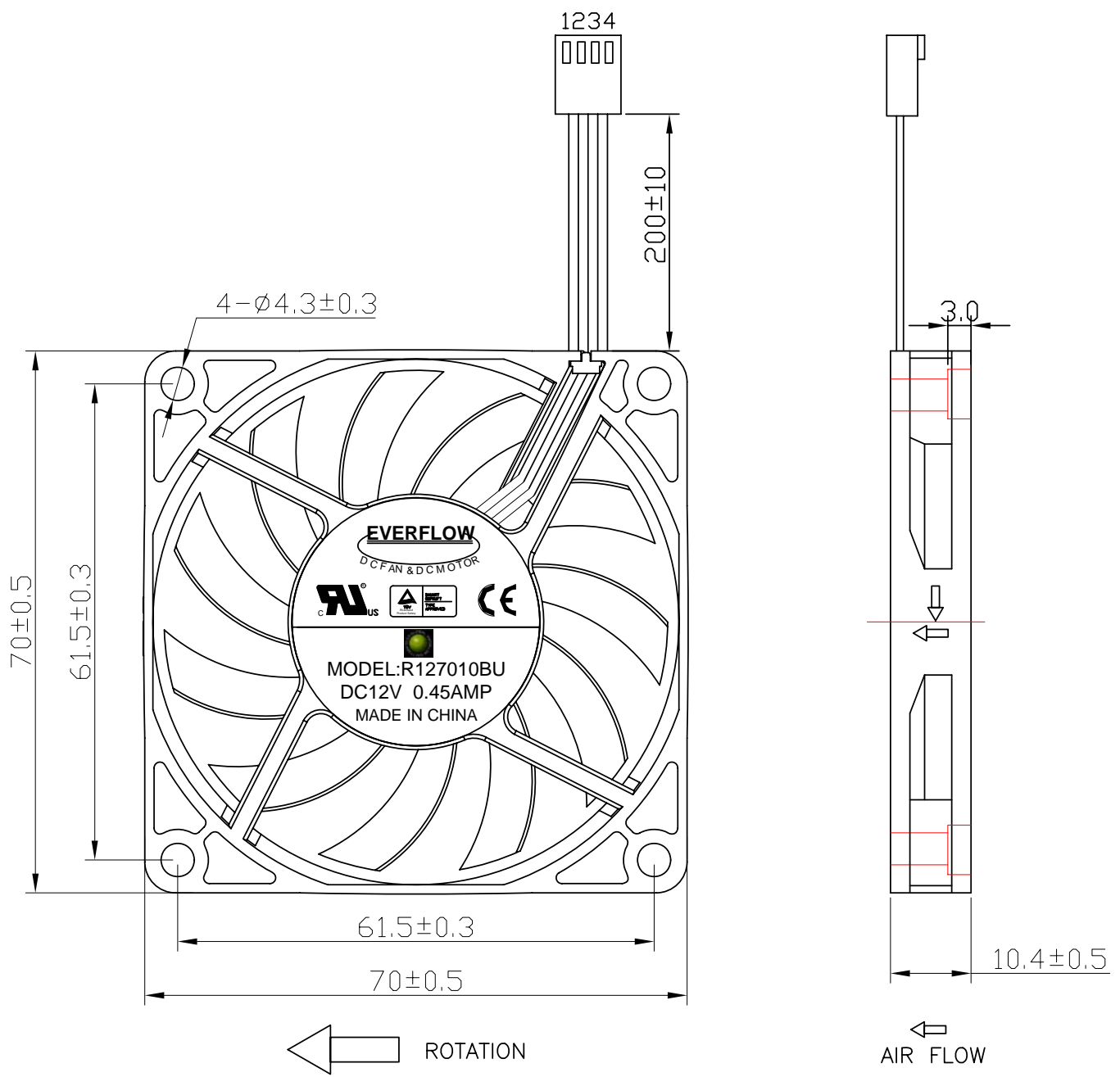
EVERFLOW PRECISION ELECTRON CO., LTD	APPROVAL	CHECKED	DRAWING
	LIU CHUN XIANG 2008/11/26	ZHU QIAO 2008/11/26	LIU PING 2008/11/26

SPECIFICATIONS

IMPORTANT NOTES & GENERAL INSTRUCTIONS

1. Customer shall confirm the matching and reliability of fan on actual set or unit application.
This include confirmation on set or unit life, electrical noise, mechanical noise, vibration, static electricity, electric power noise, drift, electric resonance between motor and control circuit, mechanical resonance between motor and chassis, irregular movement of set due to motor noise, irregular movement of set in strong electromagnetic field, damaged by lightning surge earthing method etc.
2. Any revisions on the specification shall be done based on mutual discussion and agreement.
3. In order to improve the performance within the scope of specification, parts or material changes are subject to prior notice to customer.
4. Any item which is needed to add into specification shall be determined on customer's prior written request. If no information given, fan will be delivered based on our standard judgment.
5. When any trouble occurs, both parties shall discuss on this specification to solve the matters. In this case, our guarantee is only limited to fans.

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← ROTATION

← AIR FLOW

NOTES:

1. LEAD WIRE UL 1061 AWG#28 OR EQUIVALENT
 PIN 1: BLACK WIRE---(-)
 PIN 2: YELLOW WIRE---(+)
 PIN 3: GREEN WIRE---(SIGNAL)
 PIN 4: BLUE WIRE---(PWM INPUT)
2. HOUSING: 2543-4P OR EQUIVALENT

TRCANGLE METHOD			UNIT: mm	MODEL NO.	R127010BU(AF2P9bR)
APPROVAL	LIU CHUN XIANG	2008/11/26	✕	PART NAME	DC FAN
CHECKED	ZHU QIAO	2008/11/26		DRAWING NAME	OUTLINE
DRAWING	LIU PING	2008/11/26			
EVERFLOW PRECISION ELECTRON CO.,LTD.			CODE	HT - 001	PAGE: 1

R127010BU(AF2P9bR)

DUTY CYCLE	SPEED (RPM)	RANGE	CURRENT
0%~30%	1200	± 300	$< 0.10A$
100%	5500	$\pm 10\%$	$< 0.45A$

DUTY CYCLE CURVE CHART

(F = 25KHZ V = 5V(5.25max) Duty cycle : 0 ~ 100%)

