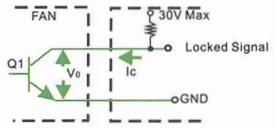
DC Fan Signal Control Models

FG 3A

Output of locked signal

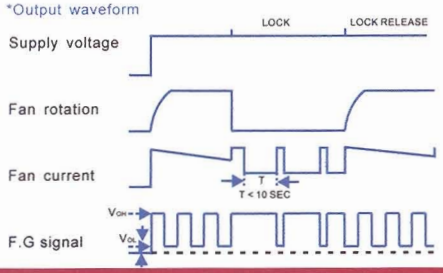
*Output type.....Open collector type

*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

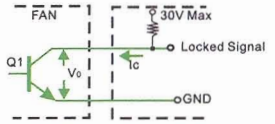


FG 3B

Output of locked signal

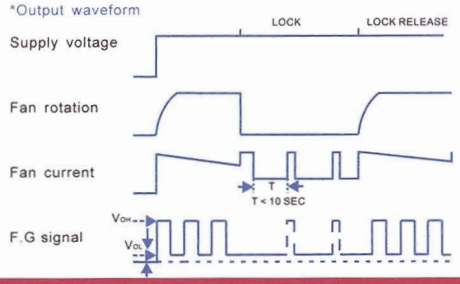
*Output type.....Open collector type

*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

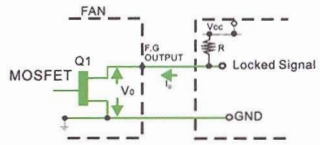


FG 3C

Output of locked signal

*Output type.....Open Drain type

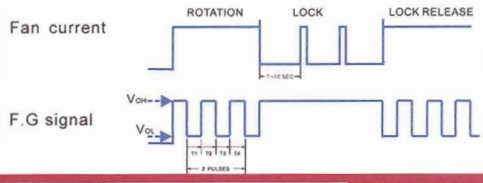
*Electrical specification:



*Mosfet Q1 at "ON" position
Drain current.....I_D=10mA Max
Saturation Voltage.....V_{OL}=0.5V Max

*Mosfet Q1 at "OFF" position
Release Voltage.....V_{OH}=6V Max
*Fan supply Voltage.....V_{CC}=6V Max

*Output waveform

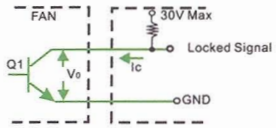


FG 3D

Output of locked signal

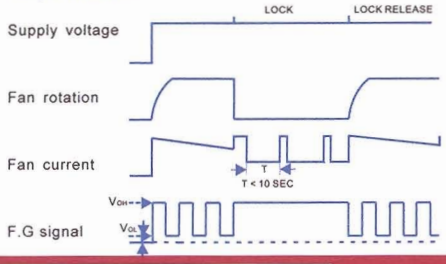
*Output type.....Open collector type

*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

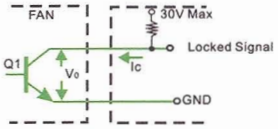


FG 3E

Output of locked signal

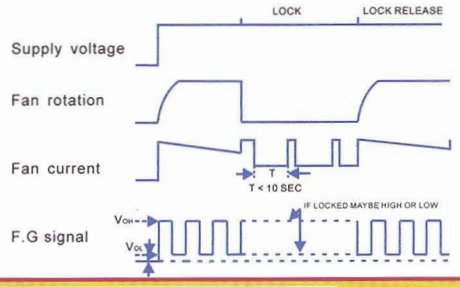
*Output type.....Open collector type

*Electrical design suggestion:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

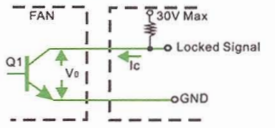


FG 6A

Output of locked signal

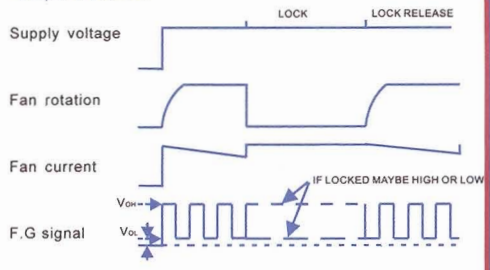
*Output type.....Open collector type

*Electrical design suggestion:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

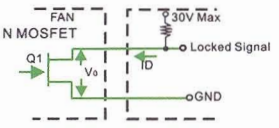


FG 6B

Output of locked signal

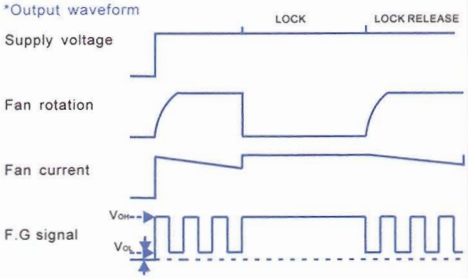
*Output type.....Open collector type

*Electrical specification:



*Mosfet Q1 at "ON" position
Drain current.....I_D=10mA Max
Saturation Voltage.....V_{OL}=0.5V Max
*Mosfet Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

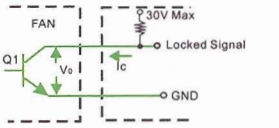


RD 2A

Output of locked signal

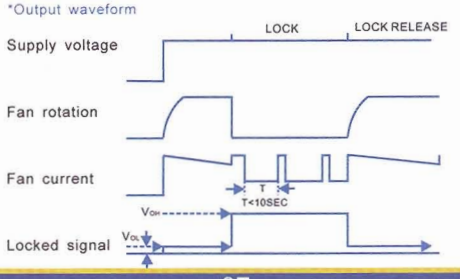
*Output type.....Open collector type

*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform

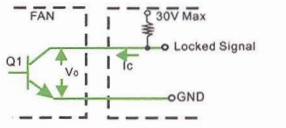


RD 2B

Output of locked signal

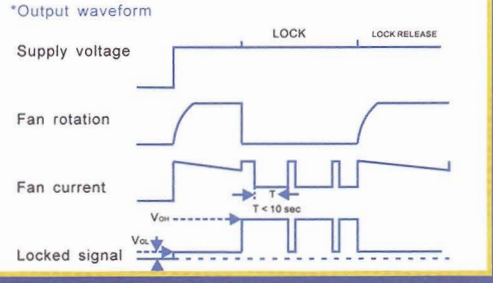
*Output type.....Open collector type

*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

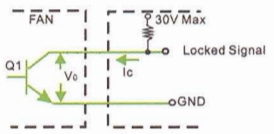
*Output waveform



DC Fan Signal Control Models

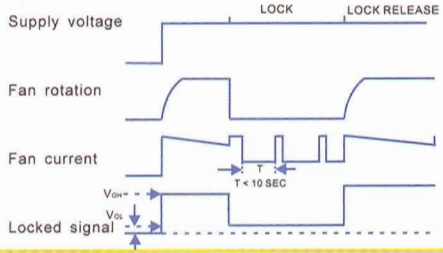
RD 2C

Output of locked signal
*Output type.....Open collector type
*Electrical specification:



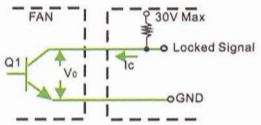
*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

*Output waveform



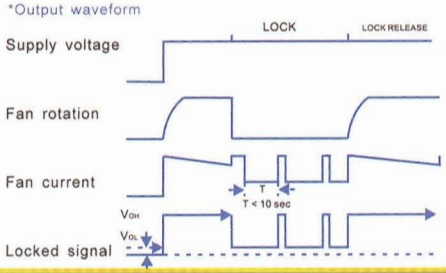
RD 2D

Output of locked signal
*Output type.....Open collector type
*Electrical specification:



*Transistor Q1 at "ON" position
Collector current.....I_C=10mA Max
Saturation Voltage.....V_{OL}=1.0V Max
(Between Collector and Emitter at I_C=10mA)
*Transistor Q1 at "OFF" position
Release Voltage.....V_{OH}=30V Max

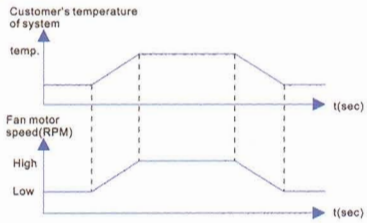
*Output waveform



Version 4(VS)

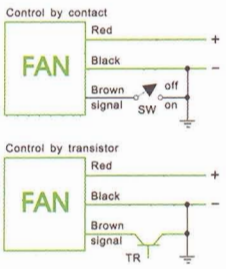
Variable Speed by Thermistor
For example,AD0812HX-A74
Diagram:

*Variable degree



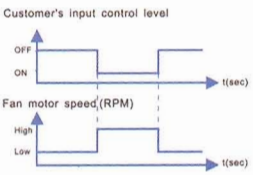
Version 7(TS)

Two speed control
*For example,AD0812HX-C77
*Diagram:



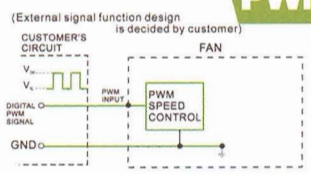
*Constant level

(Constant level)



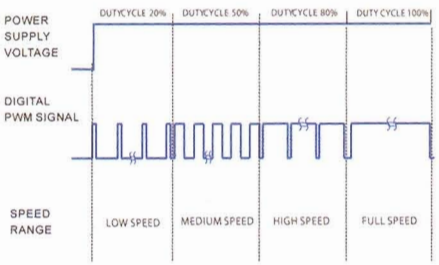
PWM 9A

PROVISION OF DIGITAL PWM SPEED CONTROL



*DIGITAL PWM SPEED CONTROL POSITION
PWM INPUT VOLTAGE HIGH.....V_{IH}=5.5 V MAX
PWM INPUT VOLTAGE LOW.....V_{IL}=0.5 V MAX
*PWM INPUT FREQUENCY.....FPWM:18KHZ~30KHZ

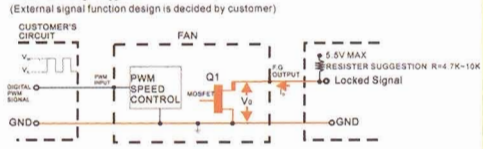
ROTATION



PWM BA

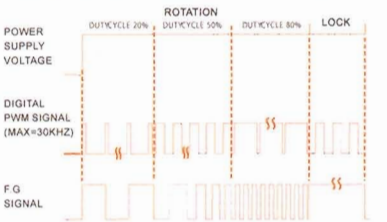
Fourth Lead Wire Design

PROVISION OF DIGITAL PWM SPEED CONTROL & LOCKED SIGNAL(F.G)
Output of locked signal .....OPEN DRAIN TYPE
*Electrical design suggestion:R=4.7K~10K
(External signal function design is decided by customer)



*MOSFET Q1 AT "ON" POSITION
DRAIN CURRENT.....I_D=10mA MAX
SATURATION VOLTAGE.....V_{DS}=0.5V MAX
*MOSFET Q1 AT "OFF" POSITION
RELEASE VOLTAGE.....V_{DS}=5.5V MAX
*DIGITAL PWM SPEED CONTROL POSITION
PWM INPUT VOLTAGE HIGH.....V_{IH}=5.5V MAX
PWM SINK CURRENT.....10μA (MAX)

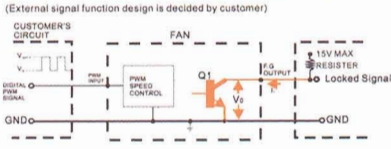
*PWM INPUT FREQUENCY.....F_{PWM}:30KHZ(MAX)



PWM BB

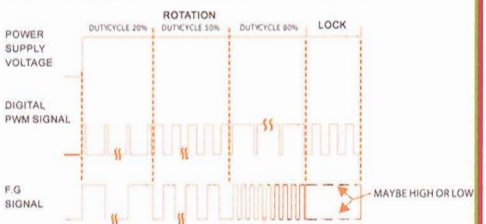
Fourth Lead Wire Design

PROVISION OF DIGITAL PWM SPEED CONTROL & LOCKED SIGNAL(F.G)
Output of locked signal .....OPEN COLLECTOR TYPE
(External signal function design is decided by customer)



*TRANSISTOR Q1 AT "ON" POSITION
COLLECTOR CURRENT.....I_C=10mA MAX
SATURATION VOLTAGE.....V_{CE}=1 V MAX
*TRANSISTOR Q1 AT "OFF" POSITION
RELEASE VOLTAGE.....V_{CE}=15 V MAX
*DIGITAL PWM SPEED CONTROL POSITION
PWM INPUT VOLTAGE HIGH.....V_{IH}=5.5 V MAX
PWM INPUT VOLTAGE LOW.....V_{IL}=0.5 V MAX

*PWM INPUT FREQUENCY.....FPWM:18KHZ~30KHZ



DC FAN GENERAL SPECIFICATION

DIELECTRIC STRENGTH
..1MA MAX AT 500VAC FOR 1 MIN BETWEEN LEAD WIRE AND FRAME
INSULATION RESISTANCE
.....10M OHM BETWEEN LEAD WIRE AND FRAME(DC 500V)
LIFE EXPECTANCY(BALL BEARING)
...70,000HRS MIN AT +40 DEGREE C/L10 RELATIVE HUMIDITY 65%+/-20%
LIFE EXPECTANCY(HYPRO BEARING)
..>40,000HRS MIN AT +40 DEGREE C/L10 RELATIVE HUMIDITY 65%+/-20%
LIFE EXPECTANCY (FDB)
..>60,000HRS MIN AT +40 DEGREE C/L10 RELATIVE HUMIDITY 65%+/-20%
OPERATION TEMPERATURE
.....-10 TO +70 DRGREE C(+14 TO+158 DEGREE F),STANDARD
.....-10 TO +90 DEGREE C(+14 TO+194 DEGREE F),SPECIFIC

STORAGE TEMPERATURE
..-40 TO +70 DEGREE C(-40 TO+158 DEGREE F)
PROTECTION
...MOTOR PROTECTION AND POLARITY PROTECTION
LEAD WIRE
.....UL1571AWG28,30
.....UL1007AWG24,26
.....UL1061AWG26
PLASTIC MATERIAL
.....BLACK PBT(UL 94V-0) WITH GLASS FIBER

The technical characteristics given in this catalogue are standard plastic version, 12VDC unless specified.