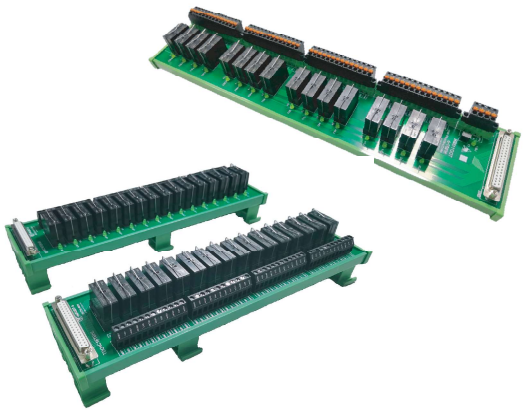
HFGD7-6 16 CHANNELS RELAY MODULE



Features

- 10A 250VAC/30VDC switching capability
- Relays are equipped with sockets for quick replacement and maintenance
- Spring type plug terminal available

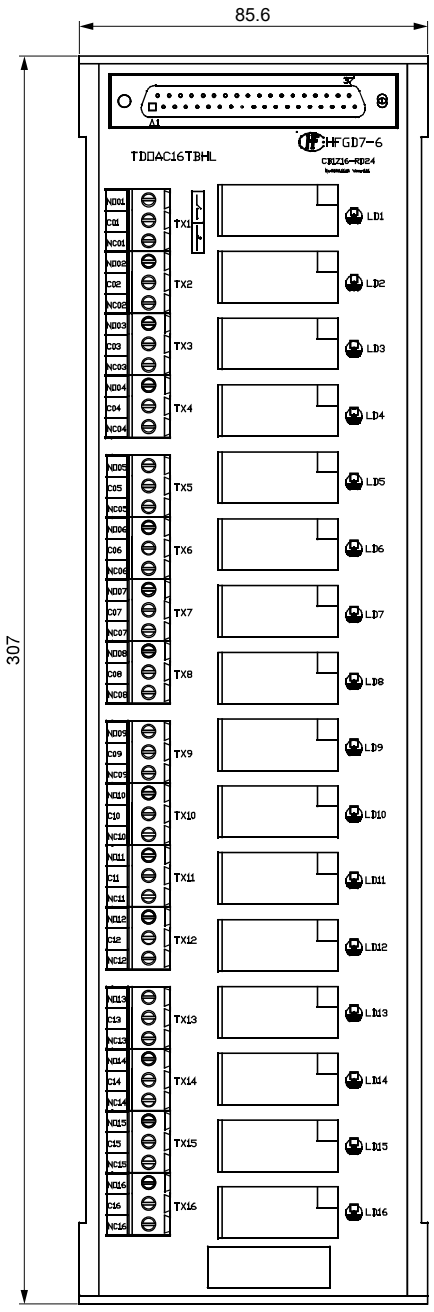
CHARACTERISTICS

INPUT		
Nominal Voltage	24VDC (Allow 80%~110% rated change range)	
Power consumption Per Channel	＜600mW	
Wiring polarity	Polar(Pay attention to wiring polarity)	
Control Channel Qty	D-SUB 37pin	
OUTPUT		
Relay specification	HF115FK(See Annex 1)	HF158F-V(See Annex 2)
Contact arrangement	1 form C	1 form A
Rated voltage	250VAC/ 30VDC	
Rated current	1 Group：10A/Channel；2 Group：8A/Channel；	
Terminal type	Terminal block(See Annex 3)(See Annex 4 and 5 for products with special code 009)	
ENVIRONMENTAL AND SAFETY REGULATIONS		
Ambient temperature	-20～55℃	
Storage temperature	-20～55℃	
Installation method	DIN35 DIN-G	
Standard compliance	IEC61010-1	
Dielectric strength (50Hz,1min)	Between output channels	1.5kV
	Between input and output	4kV
Surge voltage(1.2/50μs)	2.5kV	

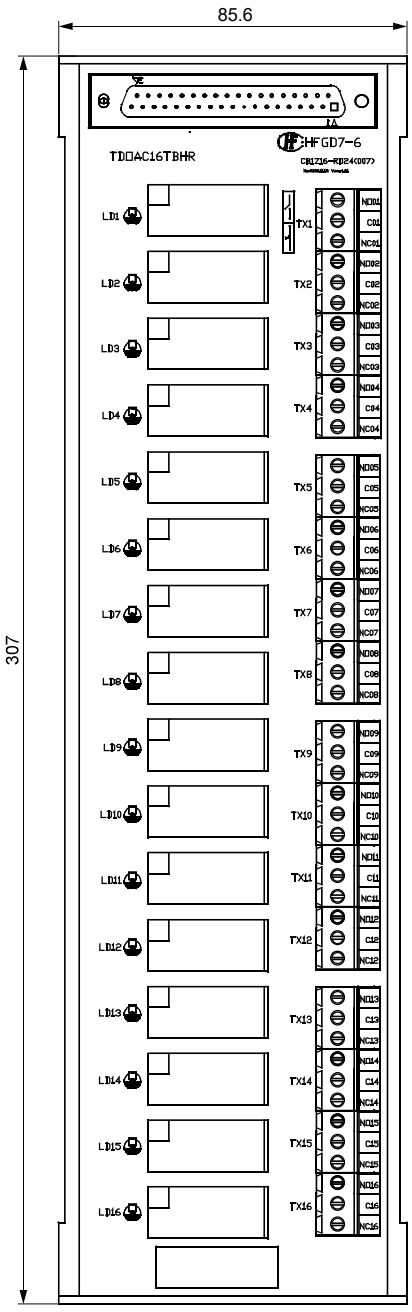
OUTLINE DIMENSIONS

Unit：mm

HFGD7-6/CB1Z16-RD24
HFGD7-6/CB1Z16-RD24



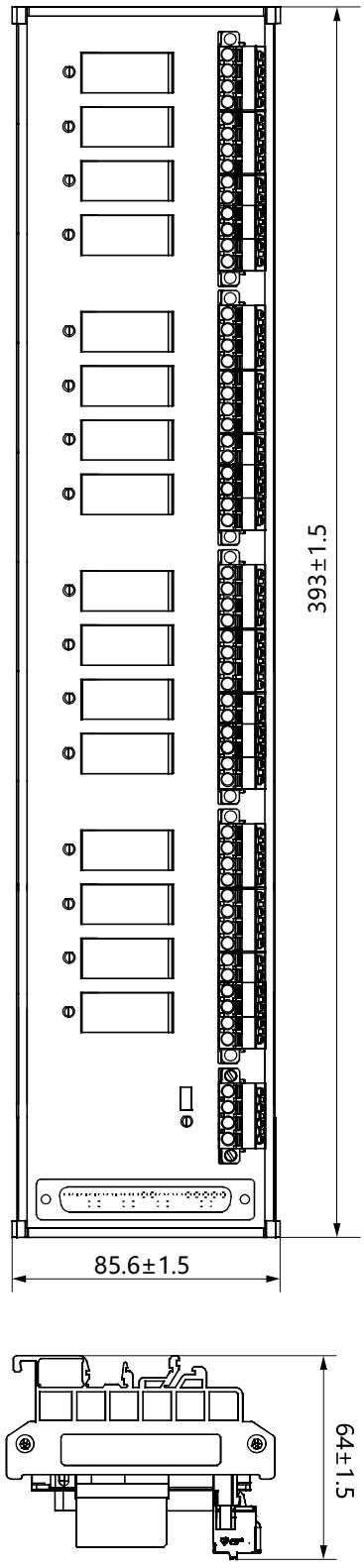
HFGD7-6/CB1Z16-RD24(007)
HFGD7-6/CB1Z16-RD24(007)



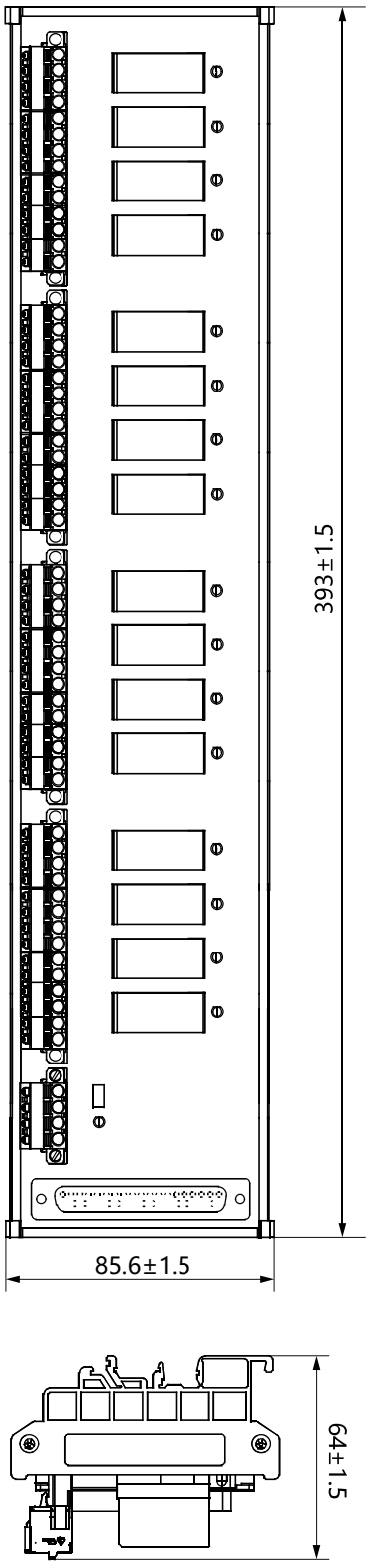
OUTLINE DIMENSIONS

Unit：mm

HFGD7-6/CSB1Z16-RD24(009)

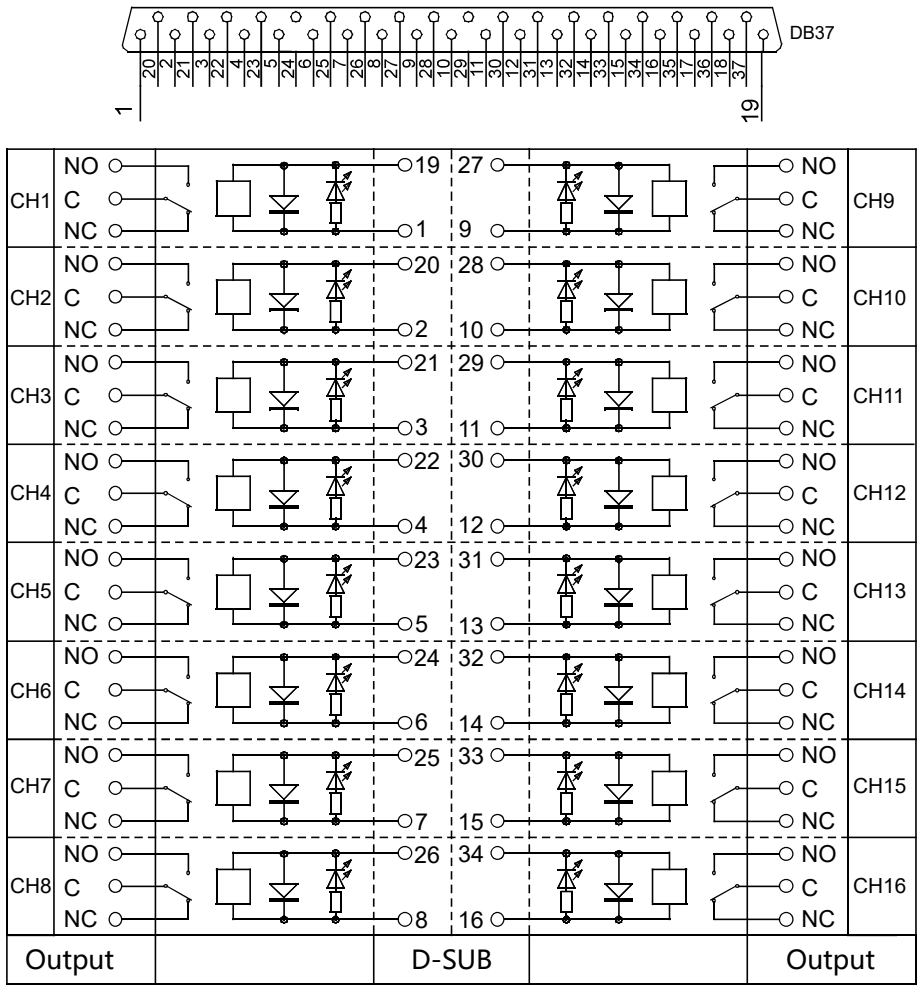


HFGD7-6/CSB1Z16-RD24(007)(009)



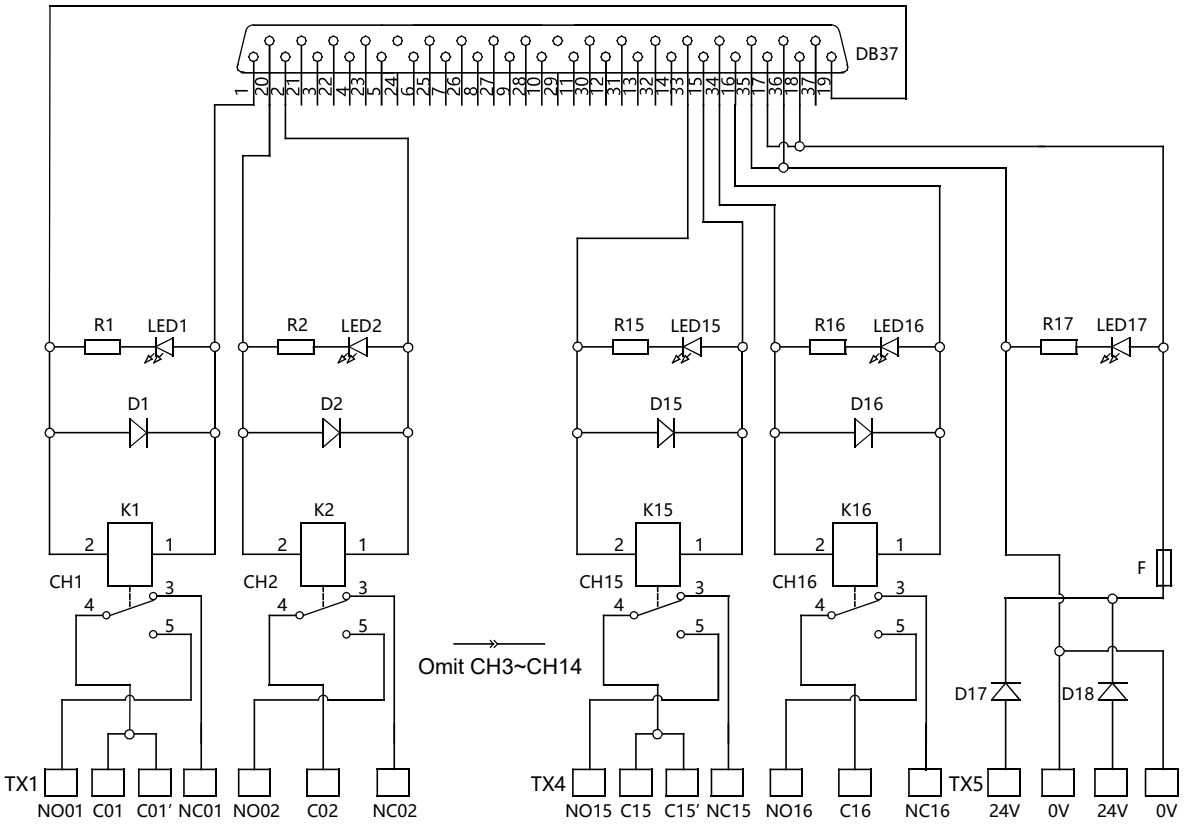
SCHEMATIC DIAGRAM

Take HFGD7-6/CB1Z16-RD24 and HFGD7-6/CB1Z16-RD24 as an example



SCHEMATIC DIAGRAM

Take HFGD7-6/CSB1Z16-RD24(009) as an example



HFGD7-6(009)D-USB Connector pin definition

Channel	DB37	Terminal block	Channel	DB37	Terminal block
CH1	1(+)19(-)	NO01、C01、C01'、NC01	CH9	9(+)27(-)	NO09、C09、C09'、NC09
CH2	2(+)20(-)	NO02、C02、NC02	CH10	10(+)28(-)	NO10、C10、NC10
CH3	3(+)21(-)	NO03、C03、C03'、NC03	CH11	11(+)29(-)	NO11、C11、C11'、NC11
CH4	4(+)22(-)	NO04、C04、NC04	CH12	12(+)30(-)	NO12、C12、NC12
CH5	5(+)23(-)	NO05、C05、C05'、NC05	CH13	13(+)31(-)	NO13、C13、C13'、NC13
CH6	6(+)24(-)	NO06、C06、NC06	CH14	14(+)32(-)	NO14、C14、NC14
CH7	7(+)25(-)	NO07、C07、C07'、NC07	CH15	15(+)33(-)	NO15、C15、C15'、NC15
CH8	8(+)26(-)	NO08、C08、NC08	CH16	16(+)34(-)	NO16、C16、NC16
Others	17(+)18(+)	24V、24V	Ohters	35(-)36(-)	0V、0V

ORDERING INFORMATION

	HFGD7-6 /	CB1Z	16-	R	D24	(XXX)
Type						
Output Channel Type	CB1Z:1 form C (HF115FK relay,Screw terminal) CSB1Z:1 form C (HF115FK relay,Spring terminal) CB1H:1 form A (HF158F-V relay,Screw terminal)					
			16 Channels			
Installation method				R：Rail		
Input rated voltage					D24：24VDC	
Special code	XXX: Customer special requirement ； Nil: Standard					

Cross reference guide

TYPE	Channel Qty	P/N	Outline dimensions(length×width×height)
HFGD7-6/CB1Z16-RD24	16	40255200021	307mm x 85.6mm x 64mm
HFGD7-6/CB1H16-RD24	16		307mm x 85.6mm x 68mm
HFGD7-6/CB1Z16-RD24(007)	16	40255200022	307mm x 85.6mm x 64mm
HFGD7-6/CB1H16-RD24(007)	16		307mm x 85.6mm x 68mm
HFGD7-6/CSB1Z16-RD24(009)	16		393mm x 85.6mm x 64mm
HFGD7-6/CSB1Z16-RD24(007)(009)	16		393mm x 85.6mm x 64mm

Annex 1: Relay parameter table(HF115FK)

File No.: E134517

File No.: 116934

File No.: CQC17002176308

Features

- 16A switching capability
- Low height(15.7mm)
- 5kV dielectric strength(between coil and congtacts)
- Creepage distance:10mm
- Meeting VDE 0700/0631 reinforce insulation
- Product in accordance to IEC60335-1 available
- Multiple contact arrangement are available
- Sockets are available
- UL insulation system：class F available

RoHS compliant

CONTACT DATA		
Contact arrangement	1H、1Z	2H、2Z
Contact Resistance	≤100mΩ（1A 6VDC）	
Contact material	AgSnO2	
Contact rating	10A/12A/16A 250VAC	8A 250VAC
Max.switching voltage	400VAC	
Max.switching current	10A/12A/16A	10A
Max.switching power	2500VA/3000VA/4000VA	2000VA
Mechanical endurance	1×10^7OPS	
Electrical endurance	H3PT type：1×10^5OPS（NO:16A 277VAC,Res. load, 40℃, 1s on,9s off） Z3PT type：5×10^4OPS（NO:16A 277VAC,Res. load, 85℃, 1s on,9s off） 2Z4PT type：5×10^4OPS（NO:8A 277VAC,Res. load, 85℃, 1s on,9s off）	
CHARACTETISTIC		
Coil power	Approx.400mW or Approx.530mW	
Insulation resistance	1000MΩ（500VDC）	
Dielectric strength	between coil＆contacts：5kVAC 1min	
	between open contacts：1kVAC 1min	
	between contact sets：2.5kVAC 1min	
Surge voltage	10kV（1.2 x 50μs）	

Annex 2: Relay parameter table(HF158F-V)

c UL us
File No.:E134517

DVE
File No.: 40032833

CQC
File No.: CQC17002176312

Features

- HVDC switching capability(10A 300VDC)
- 5kV dielectric strength (between coil and contacts)
- Creepage/Distance＞10mm
- Meet the requirements of reinforced insulation
- Product in accordance to IEC60335-1 available
- Class F insulation system

RoHS compliant

CONTACT DATA	
Contact arrangement	1H
Contact Resistance	≤100mΩ
Contact material	$AgSnO_2$
Contact rating	10A 300VDC/12A 277VAC
Max.switching voltage	420VDC/300VAC
Max.switching current	16A
Max.switching power	3000W/3324VA
Mechanical endurance	2×10^6 OPS
Electrical endurance	1×10^5OPS（10A 300VDC,Res. 85℃，1s ON,9s OFF） 1×10^5OPS（12A 277VDC,Res. 85℃，1s ON,9s OFF）

CHARACTERISTIC	
Coil power	Approx. 400mW
Insulation resistance	1000MΩ(500VDC)
Dielectric strength	Between coil and contact：5kVAC 1min
	Between open contact ：1.5kVAC 1min
Surge voltage	10kV(1.2 x 50μs)

Annex 3:Wiring terminal parameter table(HFLS1A30-508)

Features

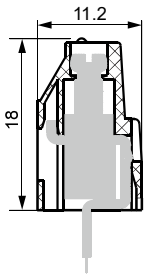
- PCB terminal block,lifting screw connector with pressing frame
- Use a screwdriver for disassembly and assembiy,with the torque of 0.4 N·m
- Suitable for wave soldering, current carrying capacity up to 24A

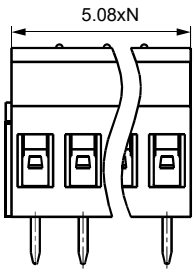
TECHNICAL SPECIFICATION

Rated load	15A 300V(UL Standard）/24A 250V(IEC Standard)
Poles	2-24
Pitch	5.08mm
Conductor Cross Section	0.2~4mm²/30~12AWG
Rated Dielectric Strength	2200VAC/min
Rated Withstand Pulse Voltage	4kV
Ambient Temperature	-40℃~105℃
Striping Length	8mm
Tightening Torque	0.5~0.6N·m
Insulation Material Type/Insulation Material Group	PA/I

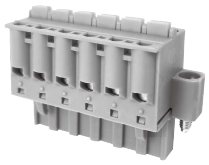
OUTLINE DIMENSIONS

Unit：mm





Annex 4:Wiring terminal parameter table(HFLS1C21-508)



Features

- Spring-based fast link technology
- Use a screwdriver to quickly remove the wire
- With a test hole, it can be connected with a test pin with a diameter of 2.0mm and a test plug with a diameter of 2.3mm

TECHNICAL SPECIFICATION

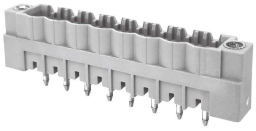
Rated load	10A 300V(UL Standard）/12A 250V(IEC Standard)
Poles	2-16
Pitch	5.08mm
Conductor Cross Section	0.2~2.5mm²/24~12AWG
Rated Dielectric Strength	2200VAC/min
Rated Withstand Pulse Voltage	4kV
Ambient Temperature	-40℃~105℃
Striping Length	10mm
Insulation Material Type/Insulation Material Group	PA/I

OUTLINE DIMENSIONS

Unit：mm

Remark:
1) Some outline dimensions of the product have no dimensional tolerance noted: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension ＞1mm and ≤5mm, tolerance,should be ±0.3mm;outline dimension ＞5mm, tolerance should be ±0.4mm.
2) In the layout of PCB mounting holes, if no dimensional tolerance is noted, it shall be calculated as ± 0.1mm.

Annex 5:Wiring terminal parameter table(HFLS1D23-508)



Features

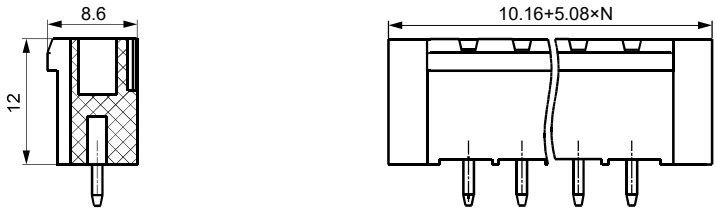
- Standard pin connector
- The plugging direction is perpendicular to the PCB board
- With flange with thread

TECHNICAL SPECIFICATION

Rated load	15A 300V(UL Standard）/12A 250V(IEC Standard)
Poles	2~16
Pitch	5.08mm
Conductor Cross Section	2200VAC/min
Rated Dielectric Strength	4kV
Rated Withstand Pulse Voltage	-40℃~105℃

OUTLINE DIMENSIONS

Unit：mm



Remark:
1) Some outline dimensions of the product have no dimensional tolerance noted: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension ＞1mm and ≤5mm, tolerance,should be ±0.3mm;outline dimension ＞5mm, tolerance should be ±0.4mm.
2) In the layout of PCB mounting holes, if no dimensional tolerance is noted, it shall be calculated as ± 0.1mm.