

JGC-8F

SOLID STATE RELAY



Features

- I/O modules for interface between CPU
- External input devices or loads.
- High isolation by employing photo-coupled devices (between input and output:2500V rms).
- Ultra slim and light weight:
--size:20mmx17mmx5mm
- Printed circuit board mount

INPUT

Item		AC Input module		DC Input module	
		110VAC Type	240VAC Type	12/24VDC Type	
INPUT side	Input Voltage Range	80 to 132Vrms	160 to 265Vrms	9.6 to 28.8Vd.c.	
	Rating input Current	15mA max.		5mA max. (at 14.4Vd.c.)	10mA max. (at 28.8Vd.c.)
	Power Frequency Range	47 to 63Hz		--	--
	Must Operate Voltage	80Vrms	160Vrms	9.6Vd.c.	
	Must Release Voltage	30Vrms	40Vrms	5.0Vd.c.	
	Must Release Current	2mA rms		1.5mA	
OUTPUT side	DC Supply Voltage(VDD)	4 to 6Vd.c.			
	Maximum Output Current	±4mA@(V _{DD} =5V)			
	Output Logic	Operate with negative true logic(active low)			
	Maximum Operate Time	25ms		10ms	
	Maximum Release Time	30ms		10ms	
	Insulation Resistance	Minimum 1000MΩ(at 500Vd.c.)			
	Dielectric Strength	2500Vrms 1minute			
	Operating Temperature Range	-30°C to +85 °C			
	Storage Temperature	-40°C to +100 °C			
	Case Color	Yellow		White	
	Weight	3.5g max.			

ORDERING INFORMATION

Input module

Type	JGC-8F /	I	110	A	XXX
Module Type	I : Input Module				
Nominal Voltage (Input)	110:110Va.c. 240:240Va.c. 12:12Vd.c. 24:24Vd.c.				
Input Voltage	A: AC type D: DC type				
Customer special request code					



OUTPUT MODULE

Item		AC Output module	DC Output module	Remarks
Nominal Voltage(DC)		3V, 5V, 12V, 24V	5V, 12V, 24V	
INPUT side	Operate Voltage Range	±20% of nominal voltage		
	Must Operate Voltage	80% of nominal voltage		
	Must Release Voltage	Minimum 1V		
	Maximum Input Current	Maximum 15mA(at 120% of Nominal Voltage)		
	Load Voltage Range	24 to 265Vrms	3 to 30Vd.c.	
	Maximum Load Current	1.0Arms 1.0A		see CHARACTERISTIC DATA
OUTPUT side	1 Cycle Surge Current	15A(60Hz)	3A(10ms)	
	Max. Off-State Leakage Current	1.5mArms	0.1mA(at 30Vd.c.)	
	Max. On-state Voltage Drop	1.2Vrms	1.2V	at max. load current
Maximum Operate Time		1ms		
Maximum Release Time		1/2 cycle+1ms	1ms	
Insulation Resistance		Minimum 1000M*(at 500Vd.c.)		for input-output
Dielectric Strength		2500Vrms 1minute		
Operating Temperature Range		-30°C to +85 °C		
Storage Temperature		-40°C to +100 °C		
Case Color		Black	Red	
Weight		3.5g max.		

ORDERING INFORMATION

output module

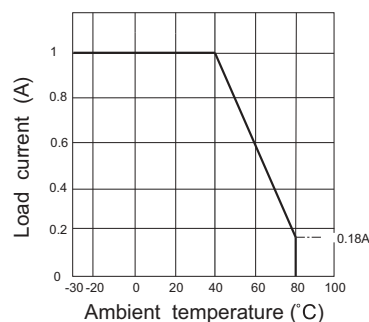
Type	JGC-8F /	O	12	D	XXX
Module Type	O : Output Module				
Nominal Voltage(input side)	03:3Vd.c.(only AC type) 05:5Vd.c. 12:12Vd.c. 24:24Vd.c.				
Output Voltage	A: AC type D: DC type				
Customer special request code					

PRECAUTIONS

- Soldering must be completed within 10 seconds at 260° or less or within 5 seconds at 350° or less.
- To output module,the SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, reduce the load current by half.
- When using the JGC-8F/O() A series for an AC load with a peak voltage of more than 450V, connect the load terminals of the relay to an inrush absorber (varistor) . The recommended varistor voltage, 440 to 470V.

CHARACTERISTICS CURVE

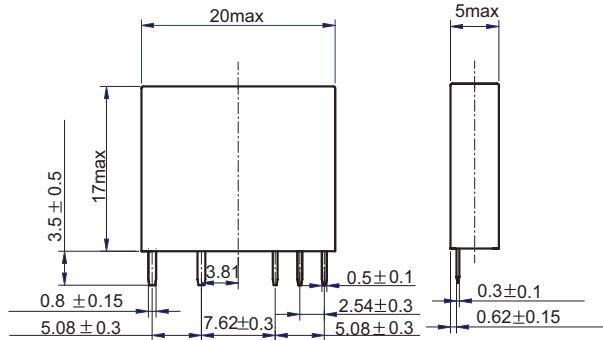
Figure 1 Maximum load current vs. ambient temperature



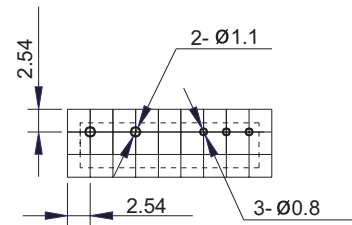
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

input module

Dimensions

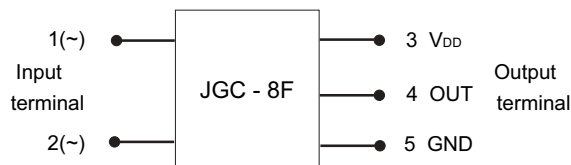


PCB mounting hole layout (BOTTOM VIEW)

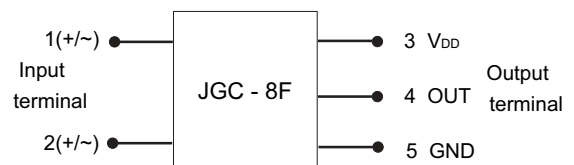


Wiring Diagram

JGC-8F/I ()A type

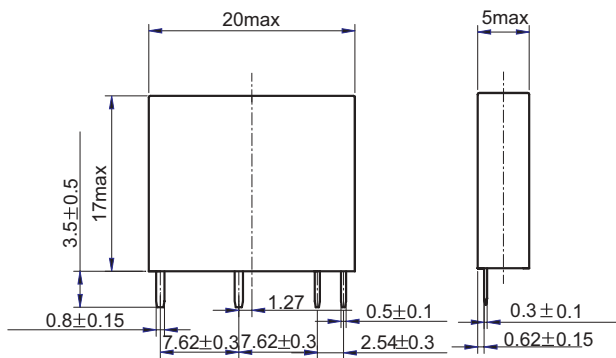


JGC-8F/I ()D type

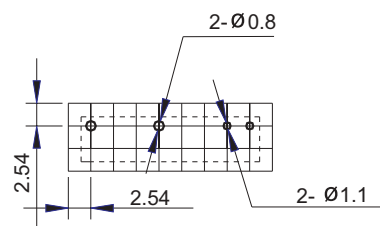


output module

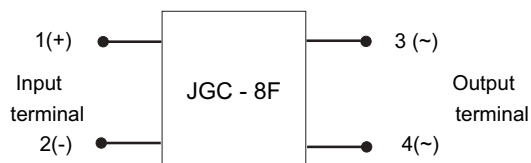
Dimensions



PCB mounting hole layout (BOTTOM VIEW)



JGC-8F/O ()A type



JGC-8F/O ()D type

