G8NDL

Automotive PCB relay (Dual H-Bridge)

G8NDL has been designed to correspond with various kinds of normal/reverse rotation motor control application as the successor to the G8ND series.

- **8-terminal dual relay. Separate coil and contact terminals.**
- **Compatible terminal layout with G8ND series.**
- **Low profile relay, downsized 17% from the G8ND series.**
- **Correspond to the reflow soldering.**

■ Purpose

- **To control the normal/reverse of the DC motor for automotive (Door lock motor, Power window motor, Sunroof motor, etc.)**

■ Type standard

G8NDL-□□□□

① ② ③ ④

	Classification	Symbol	Meaning of the symbol
①	Number of contact poles/Structure	2	1c × 2 contacts(SPDT × 2)
②	Protective structure	7	Flux protection (Open vent hole)
③	Characteristics	Blank	Standard
		H	Low power consumption
④	Special specification	R	High heat registance

■ Classification

Classification	Terminal form	Contact structure	Protective structure	Rated coil		Type	Characteristcs
				Voltage (V)	Resistance (Ω)		
Dual	PCB terminal	SPDT × 2 (1c × 2) (H-Bridge)	Flux protection (Open vent hole)	DC12	95	**G8NDL-27R**	Standard
					115	**G8NDL-27HR**	Low power consumption

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■ Ratings

● Operation coil

Rated voltage (V)	Coil resistance (Ω)	Rated current (mA)	Operating voltage (V)	Release voltage (V)	Max. of applied voltage (5A conduct, 105°C) (V)	Service voltage range (V)	Rated power consumption (mW)
DC 12	95	126.3	5.6 or less	0.9 or more	DC16, 1 min.	DC10 to 16	1516
	115	104.3	5.9 or less				1252

● Switching area

Item	Performance	
Contact material	Silver alloy	
Rated voltage	DC12V	
Rated load	Motor load, 25A	
Inrush current	30A	
Allowable carrying current	25A at DC14V (10 min.)*1	(Reference)
Min. Carry / Switching Current	DC12V 1A	

■ Performance

Item		Standard value
Contact resistance*2		50mΩ or less
Operating time*3		10ms or less
Release time*3		5ms or less
Insulation resistance*4	Between coil and terminal	100MΩ or more
	Between homopolar contacts	100MΩ or more
Withstand voltage*5	Between coil and terminal	AC500V for 1min.
	Between homopolar contacts	AC500V for 1min.
Vibration resistance	Durability	33Hz 45m/s^2
	Malfunction (Detecting time:1ms)	10 to 400Hz 45m/s^2
Shock resistance	Durability	1000m/s^2 (Operating time:6ms)
	Malfunction (Detecting time:1ms)	100m/s^2 (Operating time:11ms)
Mechanical endurance (Switching frequency:18,000 times/h)		1,000,000 times
Electrical endurance (Rated load)		100,000 times
Ambient temperature		-40 to 105°C
Ambient humidity		35 to 85%RH
Weight		6g

■ Packing

Packing form	Stick
MOQ*6	1,440pcs (40pcs × 36sticks)

Note: All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated.
*1. This is an acceptable current-carrying value in abnormal, and this is not a value which guarantee a repeat current-carrying. Please check under actual use condition before use.
*2. Measured with a voltage drop method at DC6V 1A.
*3. It changes depend on how the rated voltage is operated, but bounce-time is not included.
*4. Measured at DC500V.
*5. Measured under 1mA of leak current, 50/60Hz for 1minute.
*6. Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.

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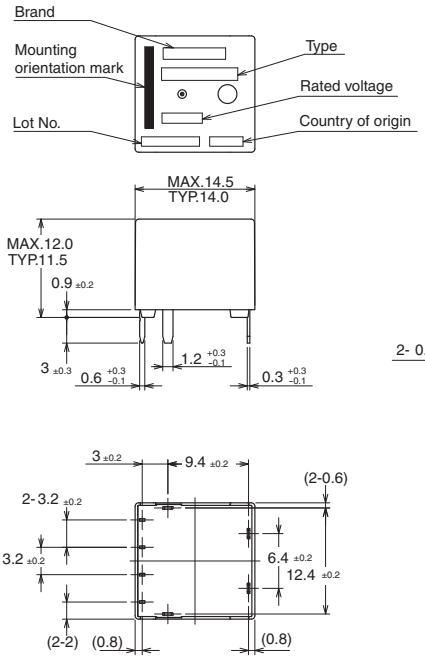
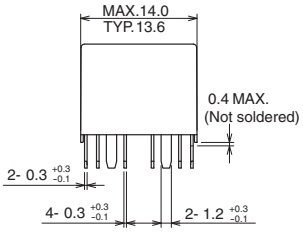
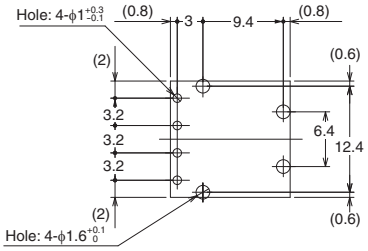
■ Dimensions (Unit: mm)

G8NDL

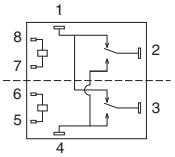




PWB processing dimension
(BOTTOM VIEW)



Terminal arrangement / Internal connections
(BOTTOM VIEW)



* Tolerance unless otherwise specified Less than 1 mm: ±0.1 mm
Less than 1 to 3 mm: ±0.2 mm
3 mm or more: ±0.3 mm

PCB Relay

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