

G8FE

Automotive PCB relay (Power)

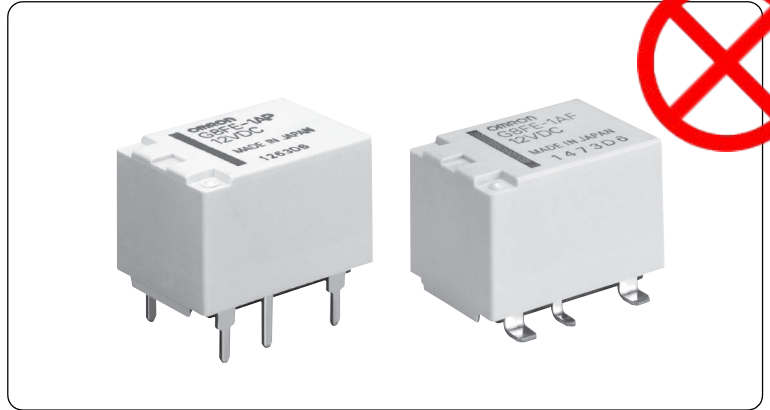
This announcement is based on product catalogue information previously shown before its discontinuation.

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Small but double terminal design achieved 15A current-carrying.(High heat resistance)

(Surface mount type is available)

- Small size and high heat resistance enable its use in engine room.
- Can be used for module design (SJB) as a replacement for existing plug-in relay.
- Resistance between contact terminals is reduced by adopting the plug-in relay structure.



■ Purpose

- Head lamp, Tail lamp, etc.

■ Type standard

G8FE-□□□-□

① ② ③ ④

	Classification	Symbol	Meaning of the symbol
①	Number of contact poles	1	Number of contact poles
②	Contact structure	A	1a contact
③	Terminal form	P	For PCB
		F	For surface mount
④	Special specification	Blank	Standard
		L	Low-heat generating

■ Classification

Classification	Terminal form	Contact structure	Protective structure	Rated coil		Type	Characteristics	
				Voltage (V)	Resistance (Ω)			
Single	For PCB	SPST (1a)	Simple plastic seal	DC12	180	G8FE-1AP	Standard	
	For surface mount					G8FE-1AF		
	For PCB					225	G8FE-1AP-L	Low-heat generating
	For surface mount						G8FE-1AF-L	

Please confirm Omron Safety Precautions for all automotive relays first.

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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 (15A conduct, 105°C) (V)	Service voltage range (V)	Rated power consumption (mW)
DC 12	180	66.7	6.0 or less	1.0 or more	DC16, continuous	DC10 to 16	800
	225	53.3	7.3 or less				640

● Switching area

Item	Performance	
Contact material	Silver alloy	
Rated voltage	DC12V	
Rated load	Resistance load 15A DC14V	
Inrush current	80A	
Continuous carry current*1	15A	
Allowable carrying current	20A at DC12V (30min) ²	(Reference)
Min. Carry / Switching Current	DC12V 1A	(Reference)

■ Performance

Item	Standard value	
Contact resistance ³	100mΩ or less	
Operating time ⁴	10ms or less	
Release time ⁴	10ms or less	
Insulation resistance ⁵	Between coil and terminal	10MΩ or more
	Between homopolar contacts	10MΩ or more
Withstand voltage ⁶	Between coil and terminal	AC500V for 1min.
	Between homopolar contacts	AC500V for 1 min.
Vibration tolerance	Durability	33Hz 45m/s ²
	Malfunction (Detecting time:1ms)	5 to 100Hz 44.1m/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	8.7g	

■ Packing

Type	PCB terminal type	Surface mount type
Packing form	Stick	Stick + Vacuum aluminum pack ⁸
MOQ ⁷	750pcs (30pcs to 25sticks)	750pcs (30pcs to 25sticks)

Note: All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated.

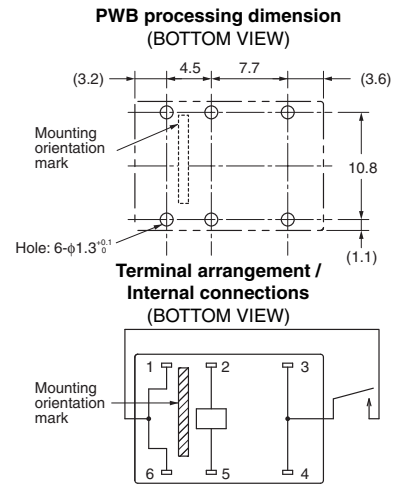
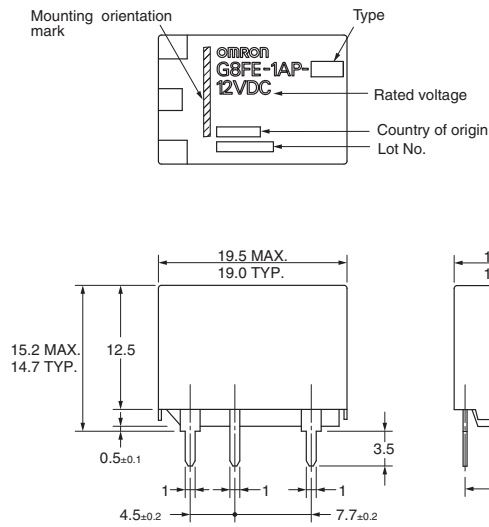
- *1. The value stated is at maximum temperature in a guaranteed ambient temperature.
- *2. This is an acceptable current-carrying value in abnormal, and this is not a value which guarantee a repeat current-carrying. Please check under actual use condition before use.
- *3. Measured with a voltage drop method at DC6V 1A.
- *4. It changes depend on how the rated voltage is operated, but bounce-time is not included.
- *5. Measured at DC500V.
- *6. Measured under 1mA of leak current, 50/60Hz for 1minute.
- *7. Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.
- *8. When it is used for reflow soldering, please use (mount) it within 24hours after opening a vacuum aluminum pack.
Room environment: 30°C or less and 60% humidity or less.
Store it in a desiccator under the following conditions after opening a vacuum aluminum pack.
Storage place : Indoor (in a desiccator)
Storage temperature : 15~35 °C
Storage humidity : less than 20% RH
Storage period : Within 6 months

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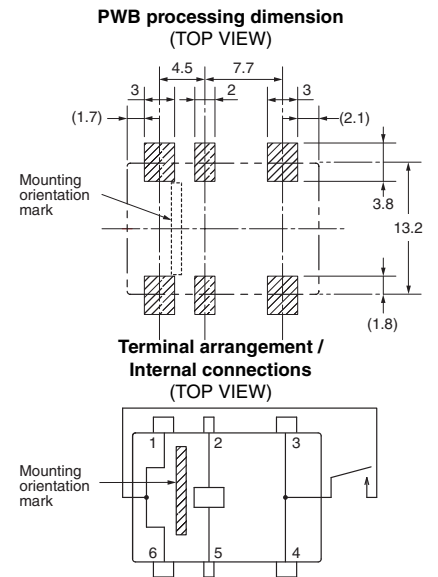
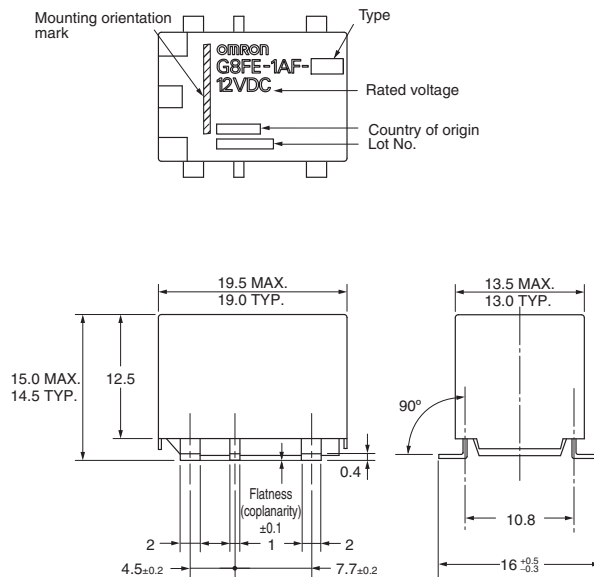
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■ Dimensions (Unit: mm)

G8FE-1AP



G8FE-1AF



* 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

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