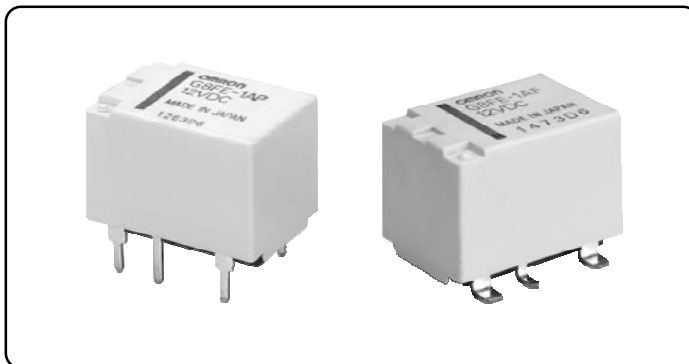


# G8FE

Small PCB relay for automobile use (high-wattage)

## Available surface-mount Double terminal improves solder reliability

- Capable of usage in an engine compartment due to small size, high wattage, and high heat resistance.
- Good for module design as a replacement for a larger plug-in relay.
- Design uses existing plug-in relay structure, reducing resistance between contact terminals.



### ■ Purpose

- Head lamp, tail lamp, EPS, etc

### ■ Type standard

**G8FE**<sup>1</sup>-□<sup>2</sup>□<sup>3</sup>□<sup>4</sup>-□<sup>5</sup>-□<sup>6</sup>

	Classification	Symbol	Meaning of the symbol
1	Basic type	G8FE	Small power relay for automobile use
2	Number of contact poles	1	Number of contact poles
3	Contact configuration	A	Standard contact configuration 1a
4	Terminal shape	P	Terminal for PCB
		F	Outward L-shape surface mount terminal
5	Appropriate specifications	Blank	Standard Spec
		L	Little heating
6	Others	Blank	Standard Spec
		Alphanumeric character	Appropriate Spec

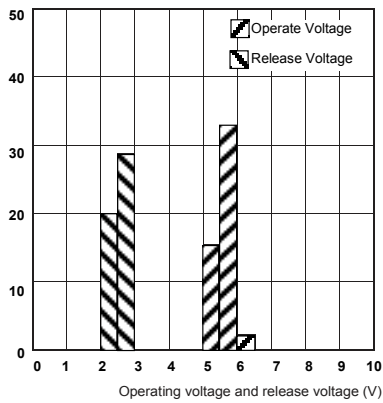
### ■ Ratings/Performance

Item		Type	G8FE-1AP G8FE-1AF Standard	G8FE-1AP-L G8FE-1AF-L Low operating voltage
Coil	Rated coil voltage		12 VDC	
	Coil resistance (at 20°C)		180 Ω	225 Ω
	Service voltage range		10 to 16 VDC	
	Operating voltage (at 20°C)		6.0 V or less	7.3 V or less
	Release voltage (at 20°C)		1.0 V or more	
Contact	Contact configuration		1a (SPST)	
	Contact material		AgSn type (non-cadmium)	
	Rated load		12 VDC 15 A Resistance load	
	Max switching current		Inrush: 80 A Steady: 15 A	
	Endurance (Lifetime)		15 A	
Endurance (Lifetime)	Mechanical		1,000,000 times	
	Electrical (Rated load)		100,000 times	
Mechanical	Impact resistance	Malfunction	100 m/s <sup>2</sup>	
		Destruction	1,000 m/s <sup>2</sup>	
	Vibration resistance	Malfunction	5~400 Hz 44.1 m/s <sup>2</sup>	
		Destruction	5~100 Hz 44.1 m/s <sup>2</sup>	
Ambient temperature range		-40~+105°C		
Weight		About 8.7 g		

### Reference Data

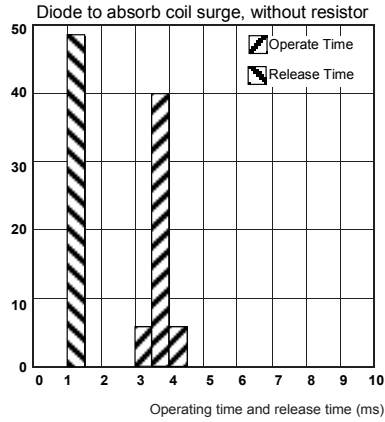
#### Operating voltage/Release voltage

Sample: G8FE-1AP 12 VDC 210 Ω 50 pcs



#### Operating time/Release time

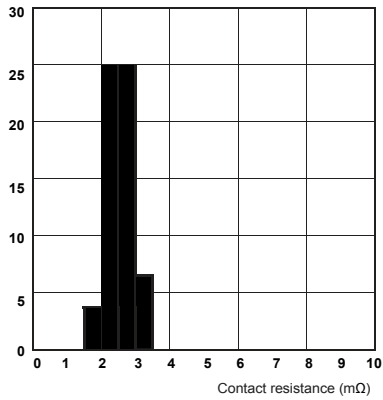
Sample: G8FE-1AP 12 VDC 210 Ω 50 pcs



#### Contact resistance

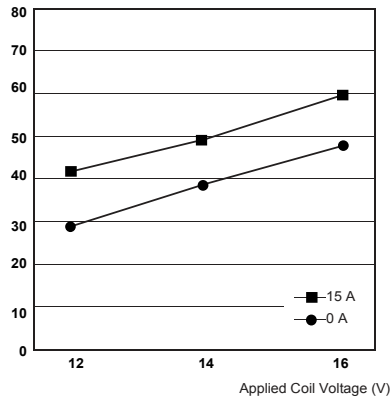
(Voltage drop method at 5 VDC, 1 A)

Sample: G8FE-1AP 12 VDC 210 Ω 50 pcs



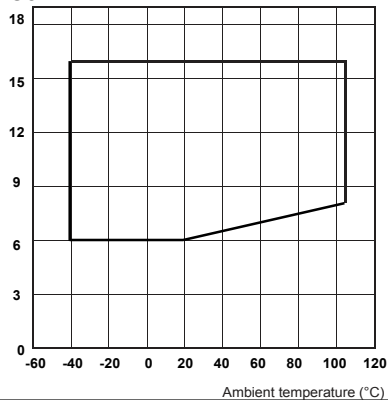
#### Coil temperature rise

Sample: G8FE-1AP 12 VDC 210 Ω 50 pcs

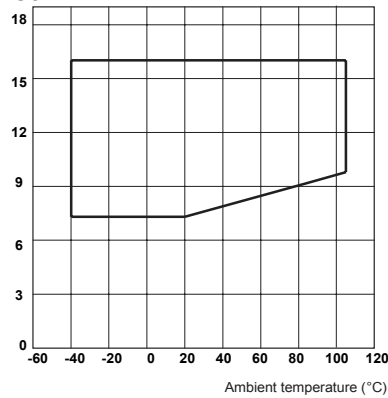


#### Ambient temperature and service voltage range (Cold start)

G8FE-1AP



G8FE-1AP-L



### Electrical endurance (Lifetime)

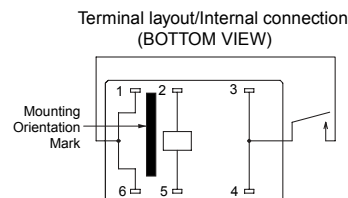
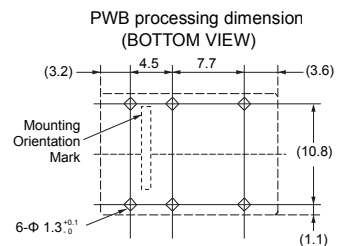
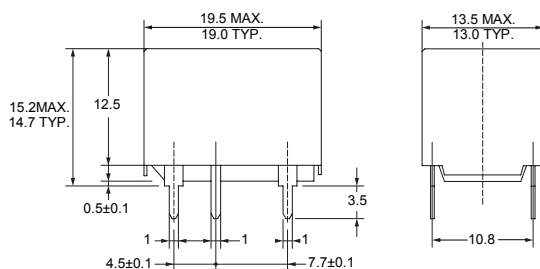
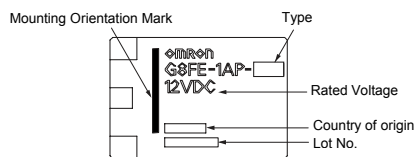
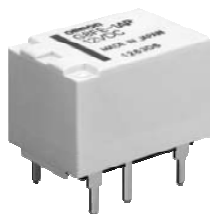
Spec	Application/Load	Load current	Switching frequency	Switching time
G8FE-1AP	Capacitor	1000 μF × 5 Discharge resistance (12Ω)	On0.5 s/Off1.5 s	100,000
G8FE-1AP	Halogen lamp (60 W × 3)	Input 82 A/Breaking 17.6 A	On1.0 s/Off7.0 s	200,000

# G8FE

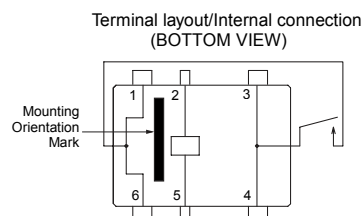
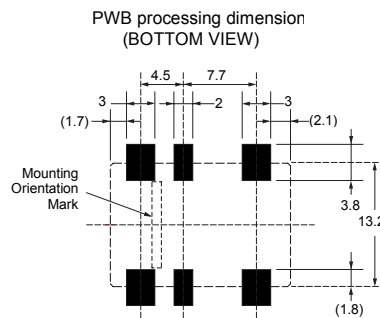
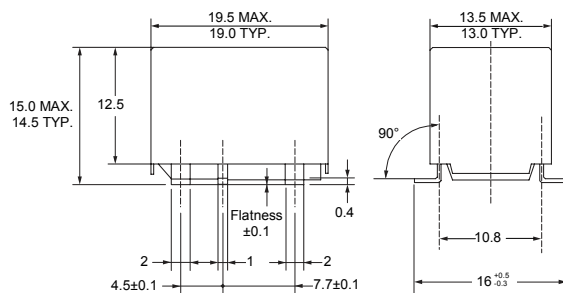
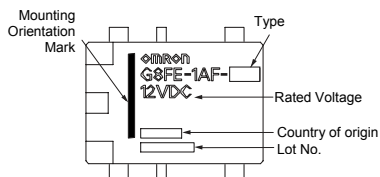
## Small PCB relay for automobile use (high-wattage)

### ■ Dimensions (unit: mm)

#### G8FE-1AP



#### G8FE-1AF



\* Tolerance unless otherwise specified

Less than 1 mm:	±0.1 mm
Less than 1~3 mm:	±0.2 mm
3 mm or more:	±0.3 mm