

EP1K Series

Non-promotion

Now, these products are corresponding only to specific customers.

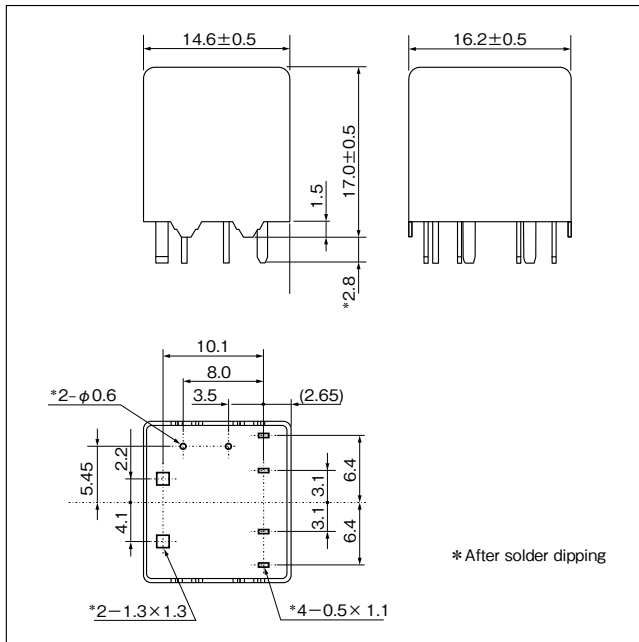


The NEXEM EP1K series is PC-board mount automotive relay suitable for control of heaters, fans and pumps, etc. The EP1K relay was developed based on the EP1 relay, and the performance of carrying current is about 10A larger than the EP1 relay.

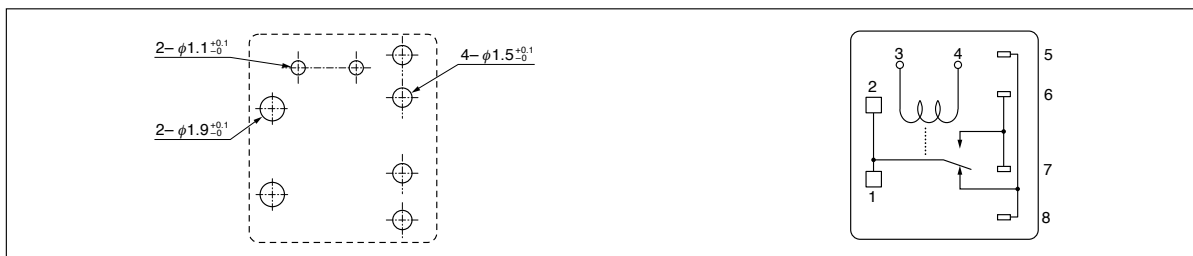
FEATURES

- The performance of carrying current is about 10A larger than the EP1 series
- High heat resistance
- Flux tight housing
- Through-hole reflow soldering available

DIMENSIONS mm



RECOMMENDED PCB PAD LAYOUT and SCHEMATICS (bottom view) mm



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- Please request for a specification sheet for detailed product data prior to the purchase.
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EP1K Series

■ SPECIFICATIONS

Items		Specifications
Contact Form		1 Form C
Contact Material		Silver oxide complex alloy
Contact Resistance		4 mΩ typical (measured at 7 A), initial
Contact Rating Power		14 VDC, 25A
Maximum Switching Current		30 A
Minimum Switching Current		1A (5 VDC)
Contact Carrying Current		54 A (1hour 14 VDC at 20°C) ^{*1}
Operate Time (Excluding bounce)		Approx. 5 ms typical (at Nominal Voltage)
Release Time (Excluding bounce)		Approx. 2 ms typical (at Nominal Voltage without diode)
Nominal Operating Power		0.64 W
Insulation Resistance		100 MΩ at 500 VDC
Withstand Voltage	Between open contacts	500 VAC min. (for 1 minute)
	Between coil and contacts	500 VAC min. (for 1 minute)
Shock Resistance	Misoperation	98 m/s ²
	Destructive Failure	980 m/s ²
Vibration Resistance	Misoperation	10 to 300 Hz, 43 m/s ²
	Destructive Failure	10 to 500 Hz, 43 m/s ² , 200 hours
Ambient Temperature		-40 to +125°C
Coil Temperature Rise		50°C/W (Contact Carrying Current: 0 A)
Running Specifications	Non-load	1 × 10 ⁶ operations
	Load	1 × 10 ⁵ operations (at 14 VDC, Motor Load 25 A / 5 A) at 25°C 1 × 10 ⁵ operations (at 14 VDC, Motor Load 18 A / 3 A) at 125°C
Weight		Approx. 8 g

*1 Mounted on PC-board: FR-4 (Thickness: 1.6mm), Copper (Thickness: 105 μm, Width: 15mm, Length: 50mm)
This value is allowable value at abnormal case such as fuse blow. And cyclical current is not guaranteed.

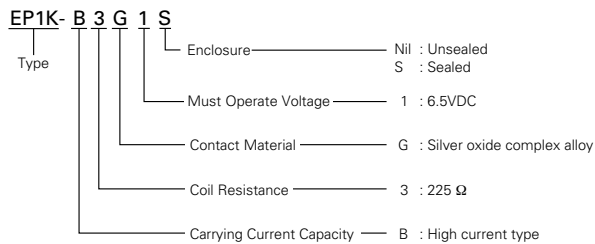
■ COIL RATING

at 20°C

Part Numbers	Nominal Voltage (VDC)	Coil Resistance (Ω) ± 10 %	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
EP1K-B3G1	12	225	6.5	0.9

* Test by pulse voltage

■ PART NUMBER SYSTEM



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