

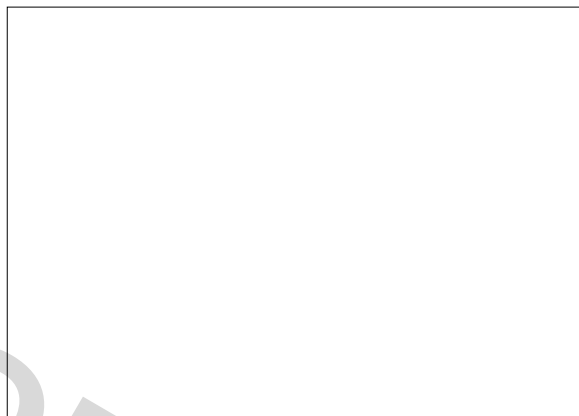
POWER RELAY

1 POLE—16 A (CADMIUM FREE CONTACTS TYPE)

VH SERIES

■ FEATURES

- UL, CSA recognized TV-10 rated
- 1 Form A (SPST-NO) contact
- Heavy duty 16 A small power relay with tab-terminals (#250)
- High inrush current and high surge voltage
 - Inrush Current 55 A
 - Surge Strength 7,000 V
- Small package meets high density mounting requirement
- Environmentally friendly cadmium free contact type is available



■ ORDERING INFORMATION

[Example] $\frac{VH}{(a) (*) (b)}$

(a)	Series Name	VH: VH Series
(b)	Nominal Voltage	Refer to the COIL DATA CHART

Actual marking omits the hyphen (-) of (*)

■ SAFETY STANDARD AND FILE NUMBERS

UL508, 873 (File No. E56140,E108658)

C22.2 No. 1, No. 14 (File No. LR35579)

Please note that UL/CSA rating may differ from the standard rating.

Please request when the approval markings are required on the cover.

Type	Nominal voltage	Contact rating
VH	5 to 60 VDC	TV-10 120 VAC 1 HP 125 VAC/250 VAC 16 A 125 VAC resistive Pilot duty A 150

■ SPECIFICATIONS

Item			VH
Contact	Arrangement		1 form A (SPST-NO)
	Material		Silver-alloy
	Style		Single
	Resistance (initial)		Maximum 30 mΩ (at 1 A 6 VDC)
	Ratings (resistive)		16 A 250 VAC
	Maximum Carrying Current		20 A
	Maximum Switching Power		4,000 VA
	Maximum Switching Voltage		380 VAC
	Maximum Switching Current		16 A
	Minimum Switching Load*1		100 mA 5 VDC
Coil	Nominal Power (at 20°C)		0.9 to 1.0 W
	Operate Power (at 20°C)		0.45 to 0.5 W
	Operating Temperature		-30°C to +70°C (no frost)
Time Value	Operate (at nominal voltage)		Maximum 15 ms
	Release (at nominal voltage)		Maximum 5 ms
Insulation	Resistance (at 500 VDC)		Minimum 1,000 MΩ
	Dielectric Strength	between open contacts	1,000 VAC 1 minute
		between coil and contacts	4,000 VAC 1 minute
	Surge Strength		7,000 V (at 1.2 × 50 μs)
Life	Mechanical		5 × 10 ⁶ operations minimum
	Electrical		2 × 10 ⁵ operations minimum (contact rating)
Other	Vibration Resistance	Misoperation	10 to 55 Hz (double amplitude of 3 mm)
		Endurance	10 to 55 Hz (double amplitude of 3 mm)
	Shock Resistance	Misoperation	200 m/s ² (11 ±1 ms)
		Endurance	1,000 m/s ² (6 ±1 ms)
	Unit Mass		Approximately 35 g

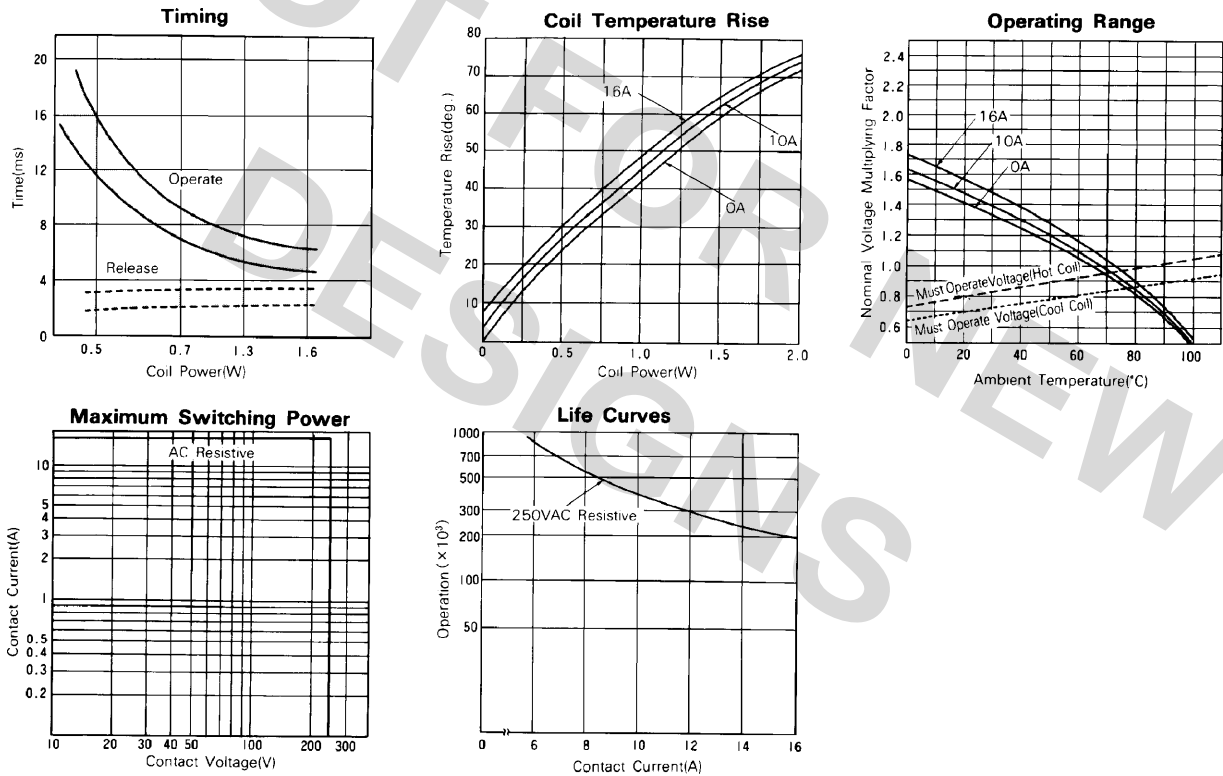
*1 Minimum switching loads mentioned above are reference values. Please perform the confirmation test with the actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

COIL DATA CHART

MODEL	Nominal voltage	Coil resistance ($\pm 10\%$)	Must operate voltage	Must release voltage	Nominal power
VH- 5	5 VDC	28 Ω	3.5 VDC	0.25 VDC	0.9 W
VH- 6	6 VDC	40 Ω	4.2 VDC	0.3 VDC	0.9 W
VH- 9	9 VDC	90 Ω	6.3 VDC	0.45 VDC	0.9 W
VH-12	12 VDC	160 Ω	8.4 VDC	0.6 VDC	0.9 W
VH-18	18 VDC	360 Ω	12.6 VDC	0.9 VDC	0.9 W
VH-24	24 VDC	640 Ω	16.8 VDC	1.2 VDC	0.9 W
VH-48	48 VDC	2,300 Ω	33.6 VDC	2.4 VDC	1.0 W
VH-60	60 VDC	3,600 Ω	42.0 VDC	3.0 VDC	1.0 W

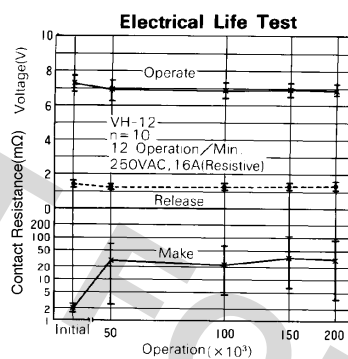
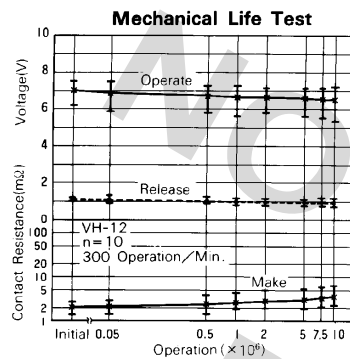
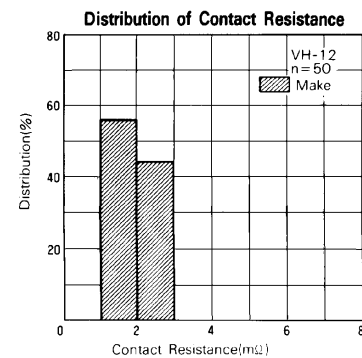
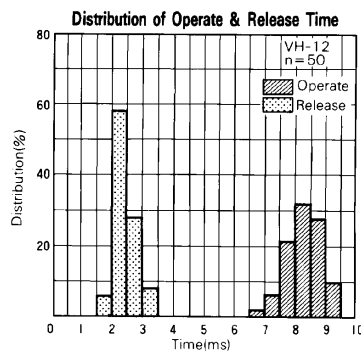
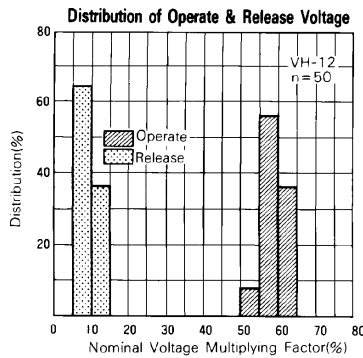
Note: All values in the table are measured at 20°C

CHARACTERISTIC DATA



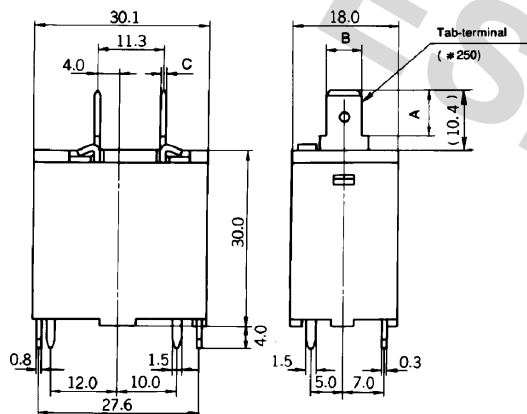
VH SERIES

REFERENCE DATA

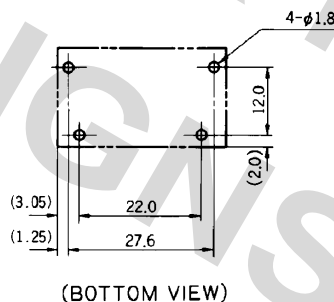


DIMENSIONS

Dimensions

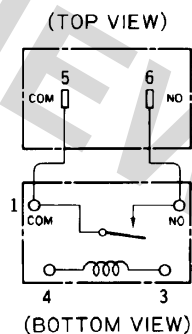


Schematics (BOTTOM VIEW)



(BOTTOM VIEW)

PC board mounting hole layout



Unit: mm

Type	A	B	C
VH	7.95	6.35	0.8

Fujitsu Components International Headquarter Offices

Japan

Fujitsu Component Limited
Gotanda-Chuo Building
3-5, Higashigotanda 2-chome, Shinagawa-ku
Tokyo 141, Japan
Tel: (81-3) 5449-7010
Fax: (81-3) 5449-2626
Email: promothq@ft.ed.fujitsu.com
Web: www.fcl.fujitsu.com

North and South America

Fujitsu Components America, Inc.
250 E. Caribbean Drive
Sunnyvale, CA 94089 U.S.A.
Tel: (1-408) 745-4900
Fax: (1-408) 745-4970
Email: marcom@fcai.fujitsu.com
Web: www.fcai.fujitsu.com

Europe

Fujitsu Components Europe B.V.
Diamantlaan 25
2132 WV Hoofddorp
Netherlands
Tel: (31-23) 5560910
Fax: (31-23) 5560950
Email: info@fceu.fujitsu.com
Web: www.fceu.fujitsu.com

Asia Pacific

Fujitsu Components Asia Ltd.
102E Pasir Panjang Road
#04-01 Citilink Warehouse Complex
Singapore 118529
Tel: (65) 375-8560
Fax: (65) 273-3021
Email: fcal@fcal.fujitsu.com
www.fcal.fujitsu.com