

Vanadium Pentoxide Lithium Rechargeable Batteries (VL Series):

TAB CONFIGURATIONS

Model No.	Tab Type		Configuration Diagram No.	Nominal	
	With Insulation Wrap	Without Insulation Wrap		Voltage (V)	Capacity (mAh)
VL621		/F9D	1	3	1.5
VL1220	/1HF		2	3	7
	/1VC		3	3	7
	/1FC		4	3	7
	/1FC2		5	3	7
		/1F5U	6	3	7
VL2020	/1VC		7	3	20
	/1GU7		8	3	20
	/1HF		9	3	20
VL2320	/1VC		10	3	30
	/1HF		11	3	30
	/1F2		12	3	30
VL2330	/1VC		13	3	50
	/1HF		14	3	50
	/1F3		15	3	50
VL3032		/1GUF	16	3	100
	/1F2		17	3	100

Notes:

- A) To ensure proper electrical contact, it is recommended that rechargeable coin cell batteries be used with tabs for PC Board mounting.
- B) Please contact Panasonic for requests on custom tab configurations. Minimum order requirements may apply.

VL Series Tab Configurations

DIMENSIONS / MM (INCH)

Model No.	Dimensions/mm (inch)	Model No.	Dimensions/mm (inch)
VL621/F9D (1.5mAh)	① Top view: $\phi 6.8^{+0}_{-0.15}$ (0.27$\pm$0.006), MAX. 9.9, 6(0.24), 0.5(0.02), 1.5$\pm$0.7(0.06$\pm$0.03). Side view: 6(0.24), 0.45(0.02), 2.15(0.08), 2.6(0.10), 0.15(0.006), 2.35$\pm$0.5 (0.09$\pm$0.02). Detail view: 2.05(0.08).	VL1220/1HF (7mAh)	② Top view: 13.5$\pm$1, 12.5, 2.7, 2.0, 3.5, 0.75, 10.0$\pm$0.5, 7.7, 3.5, 0.75. Labels: Insulation Wrap (brown), Pre-soldered.
VL1220/1VC (7mAh)	③ Top view: 12.5 (0.49), 2.0 (0.08), 1.5(0.06), 0.75(0.03), 3.25$\pm$0.5(0.13$\pm$0.02). Side view: 3.5(0.14), 0.2(0.008), 2.5(0.10). Labels: Insulation Wrap (brown).	VL1220/1FC (7mAh)	④ Top view: $\phi 12.5 \pm 0.3$, 4.5 $\pm$ 0.2, 16.25 $\pm$ 0.5, 16.25 $\pm$ 1, 0.75 $\pm$ 0.1, 4 $\pm$ 0.5, 2.7 $\pm$ 0.3, 2.7 $\pm$ 0.7, 0.2 $\pm$ 0.1. Side view: 2, 2 $\pm$ 1, 2.7 $\pm$ 0.7. Labels: Insulation Wrap (Brown), Tin plating.
VL1220/1FC2 (7mAh)	⑤ Top view: $\phi 12.5$, 16.25, 0.75, 2, 2.7. Side view: 2, 2.7. Labels: Insulation wrap (Brown), Tin plating.	VL1220/1F5U	⑥ Top view: $\phi 12.5$, 0.75, 4.0 $\pm$ 0.5, 2.3 max. Side view: 2.0, 4.0, 2.15, 0.1, 2.25. Labels: Insulator, Tin plating.
VL2020/1VC (20mAh)	⑦ Top view: 20 (0.79), 2.0 (0.08), 1.5(0.06), 5.0(0.20), 1.8(0.07), 0.75(0.03), 10.2$\pm$0.5(0.40$\pm$0.02), 2.7(0.11). Side view: 2.0 (0.08), 0.2(0.008). Labels: Insulation Wrap (brown).	VL2020/1GU7 (20mAh)	⑧ Top view: 20.5 (0.81), 20 (0.79), 3.5(0.14), 2.7(0.11), 10.9(0.43), 7.8$\pm$0.5(0.70$\pm$0.02). Side view: 10.16(0.40), 5.08 (0.20), 3.5 (0.14), 0.75(0.03). Labels: Insulation Wrap (brown).
VL2020/1HF (20mAh)	⑨ Top view: 20 (0.79), 2.0 (0.08), 3.5(0.14), 2.7(0.11), 20.5$\pm$0.5 (0.81$\pm$0.02), 0.75(0.03). Side view: 7.7(0.30), 0.2 (0.008), 1.8(0.07), 3.5(0.14). Labels: Insulation Wrap (brown).	VL2320/1VC (30mAh)	⑩ Top view: 23 (0.91), 2.0 (0.08), 1.5(0.06), 5.0(0.20), 1.8(0.07), 0.75(0.03), 10.2$\pm$0.5(0.40$\pm$0.02), 2.7(0.11). Side view: 0.2(0.008). Labels: Insulation Wrap (brown).

VL Series Tab Configurations

DIMENSIONS / MM (INCH) cont.

Model No.	Dimensions/mm (inch)	Model No.	Dimensions/mm (inch)
VL2320/1HF (30mAh)	⑪ Insulation Wrap (brown) 2.0 (0.08) 23 (0.91) 3.5 (0.14) 0.75 (0.03) 2.7 (0.11) 20.5±0.5 (0.81±0.02) 7.7 (0.30) 0.2 (0.008) 1.8 (0.07) 3.5 (0.14)	VL2320/1F2 (30mAh)	⑫ Insulation Wrap (brown) 23 (0.91) 5.6±0.8 (0.22±0.03) 6.7±1 (0.26±0.04) 2.0 (0.08) 5.2 (0.20) 0.15 (0.006) 2.6 (0.10)
VL2330/1VC (50mAh)	⑬ Insulation Wrap (brown) 23 (0.91) 3.0 (0.12) 1.5 (0.06) 5.0 (0.20) 1.8 (0.07) 0.75 (0.03) 10.2±0.5 (0.40±0.02) 3.7 (0.15) 0.2 (0.008)	VL2330/1HF (50mAh)	⑭ Insulation Wrap (brown) 23 (0.91) 3.0 (0.12) 4.0±0.1 3.5 (0.14) 0.75 (0.03) 2.7 (0.11) 20.5±0.5 (0.81±0.02) 8.9 (0.35) 0.2 (0.008) 1.8 (0.07) 3.5 (0.14)
VL2330/1F3 (50mAh)	⑮ Insulation Wrap (brown) 23 (0.91) 3.0 (0.12) 2.0 (0.08) 7.6±0.8 (0.30±0.03) 5.0 (0.20) 3.0 (0.12) 3.5 (0.14) 0.1 (0.004) 3.35 (0.13) 0.13 (0.005)	VL3032/1GUF (100mAh)	⑯ Insulation Wrap (brown) 3.2 (0.128) 30 (1.2) 4.0 (0.16) 0.75 (0.03) 3.5 (0.14) 25.4±1 (1.016±0.04) 8.9 (0.35) 0.2 (0.008) 0.75 (0.03) 5.1 (0.204) 10.2 (0.408) 3.5 (0.14)
VL3032/1F2 (100mAh)	⑰ Insulation Wrap (brown) 30 (1.18) 5.0 (0.20) 5.0 (0.20) 3.2 (0.13) 3.0 (0.12) 0.15 (0.006) 3.8 (0.15)		