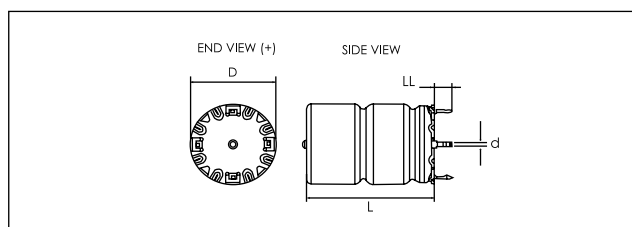


- 2000 hours at +150°C
- Ultra-high CV
- Extremely high ripple current capability
- High vibration stability
- AEC-Q200 automotive qualified, RoHS Compliant



Items	Characteristics		
Operating Temperature Range (°C)	-40 ~ +150		
Voltage Range (V)	25 ~ 63		
Capacitance Range (μF)	520 ~ 7000		
Capacitance Tolerance (20°C, 100Hz)	-10/+30%, (± 20% select values)		
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.003CV+4.0. C: Nominal Capacitance (μF) V: Rated Voltage (V)		
Equivalent Series Resistance (20°C, 100Hz/100kHz)	Less than values shown in the standard ratings.		
Operational Life	D(mm)	Rated voltage, +125°C (hours)	Rated voltage, +150°C (hours)
	16	6300	1500
	18/20	8400	2000
	Capacitance Change: Within 15% of the initial value. Equivalent Series Resistance: Not more than 200% of the initial value. Leakage Current: Not more than the initial specified value. (All specifications should be tested at +20°C ambient temperature.)		
Shelf Life	5000 hours at +105°C or 10 years at +40°C 0 VDC		
Vibration Test	Procedure: Displacement amplitude max.1.5mm, acceleration max.20g, duration 3x22h, frequency range 10 ~ 2000 Hz (capacitor clamped by body). Requirements: No leakage of electrolyte or other visible damage. Deviations in capacitance from initial value must not exceed $\Delta C/C < 5\%$		
Standards	IEC 60384-4, AEC-Q200		

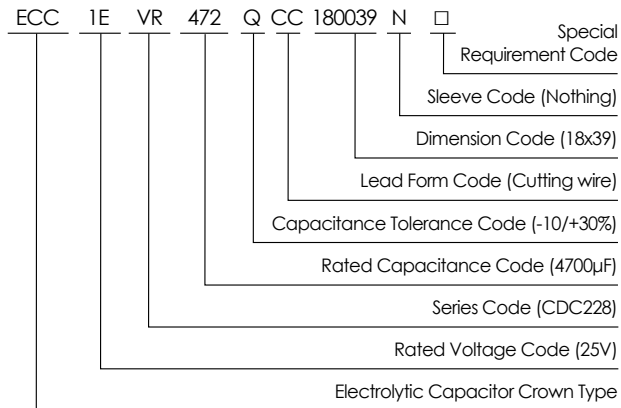
Dimensions mm



Dimension Code	D	L	d	LL	Approximate Weight (g)
	±0.5	±1.0	±0.03	±0.5	
160027	16.2	27.7	1.0	3.3	8
160035	16.2	35.7	1.0	3.3	11
180027	18.2	27.7	1.0	3.3	11
180035	18.2	35.7	1.0	3.3	14
180039	18.2	39.7	1.0	3.3	16
200027	20.2	27.7	1.0	3.3	13
200035	20.2	35.7	1.0	3.3	20
200043	20.2	43.7	1.0	3.3	24

Note: Catalog parts show the standard design, the new designs need to contact to Jianghai.

Part Number System (Ex:25V4700μF)



Ripple Current Coefficient

Frequency (Hz)	100	300	1K	5K	100K
Coefficient	0.35	0.57	0.80	1.00	1.04

Ratings for CDC228 VR Series

U _R Code	Rated Capacitance	Max ESR			Ripple Current					Size ΦD x L	P/N
					Max Tc			Rated Ta	Max Ta		
		20℃, 100Hz	20℃, 100Hz	20℃, 100kHz	125~150℃, 5~100kHz	125℃, ≥ 5kHz	140℃, ≥ 5kHz	150℃, ≥ 5kHz	125℃, ≥ 5kHz		
(V)	(μF)	(mΩ)	(mΩ)	(mΩ)	(Arms)1*	(Arms)1*	(Arms)1*	(Arms)2*	(Arms)3*	(mm)	-
25 (1E)	2100	58	32	12.3	17.0	10.8	4.8	6.1	7.7	16X27	ECC1EVR212M □□ 160027
	3000	41	23	9.8	19.1	12.1	5.4	7.3	9.2	16X35	ECC1EVR302M □□ 160035
	2800	43	24	10.6	19.2	12.1	5.4	6.9	8.8	18X27	ECC1EVR282Q □□ 180027
	4100	31	18	8.5	21.4	13.6	6.1	8.3	10.4	18X35	ECC1EVR412Q □□ 180035
	4700	27	16	8	22.1	14.0	6.3	8.8	11.1	18X39	ECC1EVR472Q □□ 180039
	3700	35	20	9.9	22.9	14.5	6.5	7.5	9.5	20X27	ECC1EVR372Q □□ 200027
	5300	25	15	8.1	25.4	16.0	7.2	8.9	11.3	20X35	ECC1EVR532Q □□ 200035
	7000	20	13	7.2	27.0	17.0	7.6	9.9	12.5	20X43	ECC1EVR702Q □□ 200043
40 (1G)	1100	79	32	13.1	16.5	10.4	4.7	5.9	7.5	16X27	ECC1GVR112Q □□ 160027
	1700	54	23	10.1	18.8	11.9	5.3	7.2	9	16X35	ECC1GVR172Q □□ 160035
	1700	55	24	11	18.8	11.9	5.3	6.8	8.6	18X27	ECC1GVR172Q □□ 180027
	2400	39	18	8.8	21.1	13.3	6	8.2	10.3	18X35	ECC1GVR242Q □□ 180035
	2800	34	16	8.2	21.8	13.8	6.2	8.6	10.9	18X39	ECC1GVR282Q □□ 180039
	2200	44	20	10.2	22.6	14.3	6.4	7.4	9.3	20X27	ECC1GVR222Q □□ 200027
	3200	31	15	8.2	25.2	15.9	7.1	8.8	11.1	20X35	ECC1GVR322Q □□ 200035
	4200	25	13	7.3	26.7	16.9	7.6	9.8	12.3	20X43	ECC1GVR422Q □□ 200043
63 (1J)	520	133	45	22	12.7	8.1	3.6	4.6	5.8	16X27	ECC1JVR521Q □□ 160027
	750	93	32	16.4	14.8	9.3	4.2	5.6	7.1	16X35	ECC1JVR751Q □□ 160035
	750	94	33	17.3	15	9.5	4.3	5.4	6.9	18X27	ECC1JVR751Q □□ 180027
	1100	66	24	13.3	17.1	10.8	4.8	6.6	8.4	18X35	ECC1JVR112Q □□ 180035
	1200	60	21	12.1	18	11.4	5.1	7.1	9	18X39	ECC1JVR122Q □□ 180039
	990	74	27	15.2	18.5	11.7	5.2	6.1	7.7	20X27	ECC1JVR991Q □□ 200027
	1400	53	20	11.7	21.1	13.3	6	7.4	9.4	20X35	ECC1JVR142Q □□ 200035
	1800	42	16	10.1	22.7	14.4	6.4	8.4	10.6	20X43	ECC1JVR182Q □□ 200043

Note: 1* Capacitor-mounted with low thermal resistance path (heat-sink).

2* Rated ripple current, continuous operation at natural convection (φ18/20 case 4000 h, φ16 case 3000 h).

3* Max ripple current, at natural convection (φ18/20 case 2000 h, φ16 case 1500 h).