

5000h at 85°C

- Features
 - Long Life
 - High Reliability
 - RoHS Compliant
- Applications
 - High Currents for High Professional
 - Power Application and Inverters



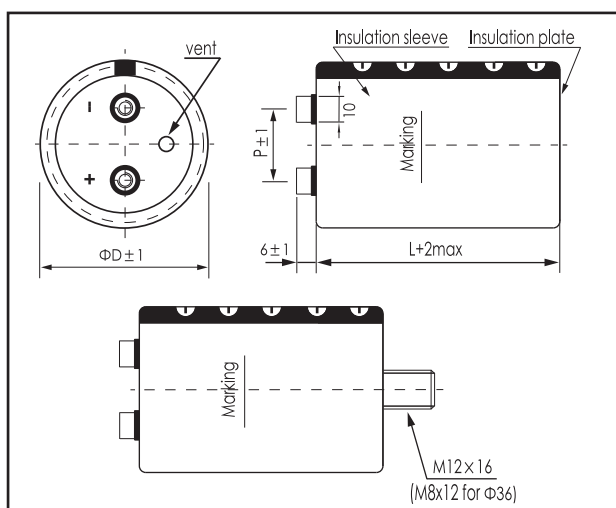
SCREW

Items	Characteristics
Operating Temperature Range (°C)	-40 ~ +85
Voltage Range (V)	350 ~ 450
Capacitance Range (µF)	1000 ~ 18000
Capacitance Tolerance (20°C, 120Hz)	± 20%
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 5mA, whichever is smaller. C: Nominal Capacitance (µF) V: Rated Voltage (V)
Dissipation Factor (20°C, 120Hz)	Less than 0.15
Stability at Low Temperature (120Hz)	$C_{-25°C} / C_{+20°C} \geq 0.7$

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	>10000h	>100000h	5000h	5000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ± 30% of initial value		Within ± 20% of initial value	Within ± 10% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 130% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 85°C	U_R $1.2 \times I_R$ 40°C	U_R I_R 85°C	U_R $I_R = 0$ 85°C	After test: U_R to be applied for 60min >24h before measurement

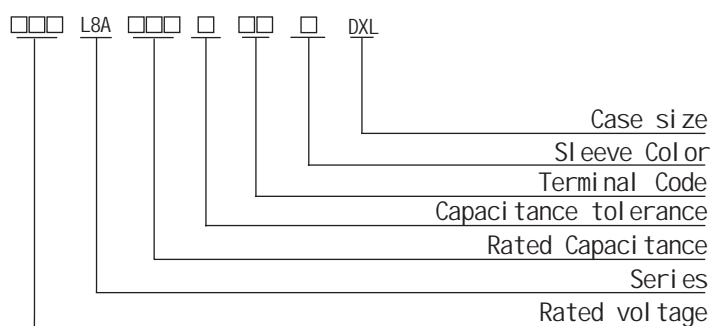
Dimensions

mm



ΦD/mm	51	64	77	90	101
P/mm	22.0	28.2	31.4	31.4	41.5

Part Number System



Ripple Current Coefficient

Frequency (Hz)	50/60	120	300	1k	>10k
Coefficient	0.80	1.00	1.10	1.30	1.40

Ambient Temp (°C)	40	60	85
Coefficient	1.89	1.67	1.00

*Hex head screw M5 x 10 and M6 x 12 are standard screws. Longer screws are available on request.
 *Max tightening torque for screw terminal M5: 3Nm, M6: 4Nm. Max torque for bolt mounting M12: 12.5Nm.
 *Screws, Bracket and cap nut will be delivered separately. See "Accessories" for shape and dimensions

The useful life can be prolonged by operating capacitor at loads below the rated values (e.g. lower operating voltage, Rms ripple current or ambient temperature) and by appropriate cooling measures.
 It is advisable not to apply a ripple current exceeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

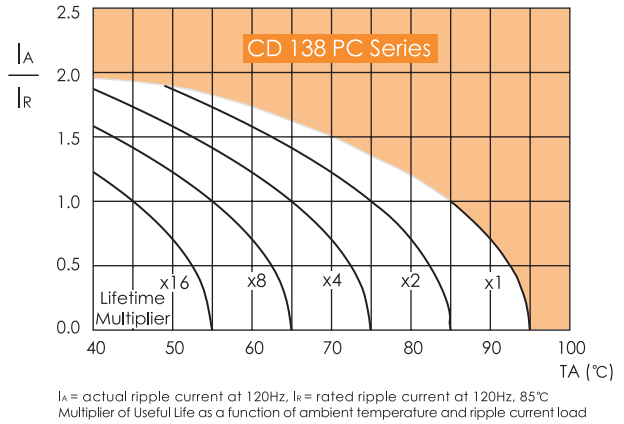
Ratings for CD 138 Series

SCREW

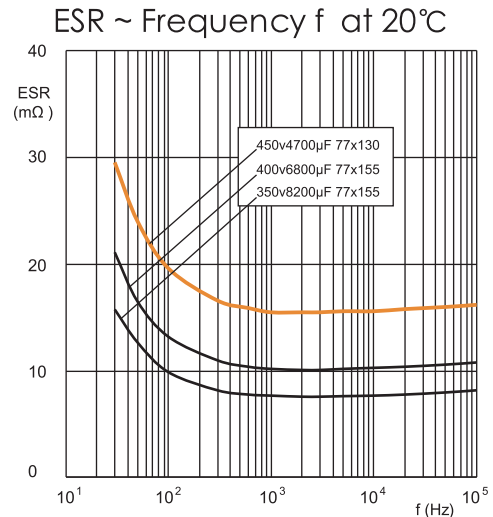
U_R (Surge Voltage) Code	Rated Capa- cance	Max.ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size $\Phi D \times L$
(V)	(μF)	(m Ω)	(m Ω)	(Arms)	(mm)
350 (400) 2V	1200	215	67	5.50	51 × 83
	1500	172	55	6.10	51 × 83
	1800	143	43	7.40	51 × 96
	2200	117	30	8.20	51 × 96
	2700	96	27	10.20	51 × 130
	3300	78	23	11.30	51 × 130
	3900	66	19	12.80	64 × 115
	4700	55	16	14.80	64 × 130
	5600	46	14	16.30	77 × 115
	6800	38	13	18.80	77 × 130
	8200	31	11	22.10	77 × 155
	10000	26	10	25.90	90 × 157
	12000	22	8	28.40	90 × 157
	15000	17	6	34.60	90 × 196
18000	14	4	41.40	90 × 236	
400 (450) 2G	1000	215	82	5.00	51 × 83
	1200	179	70	5.50	51 × 83
	1500	143	50	6.70	51 × 96
	1800	119	40	7.40	51 × 96
	2200	98	28	9.20	51 × 130
	2700	80	23	9.90	64 × 96
	3300	65	21	11.80	64 × 115
	3900	55	19	13.50	64 × 130
	4700	46	15	14.90	77 × 115
	5600	39	14	17.00	77 × 130
	6800	32	13	20.20	77 × 155
	8200	26	12	23.50	90 × 157
	10000	22	10	25.90	90 × 157
	12000	18	8	31.00	90 × 196
15000	14	6	37.50	90 × 236	
450 (500) 2W	1000	215	93	5.00	51 × 83
	1200	179	69	6.00	51 × 96
	1500	143	56	7.20	51 × 115
	1800	119	45	8.30	51 × 130
	2200	98	35	9.00	64 × 96
	2700	80	30	10.70	64 × 115
	3300	65	24	12.40	64 × 130
	3900	55	20	13.60	77 × 115
	4700	46	16	15.60	77 × 130
	5600	38	13	18.30	77 × 155
	6800	32	11	21.40	90 × 157
	8200	26	10	23.50	90 × 157
	10000	22	9	28.30	90 × 196
	12000	18	8	33.60	90 × 236

Mounting code(B" fbr bolt mounting, Y/I/N fbr bracket mounting)
Terminal options(A,B,C see "Dimensions" for details.)

Lifetime Diagram



Typical Curves



Impedance Z ~ Frequency f at 20°C

